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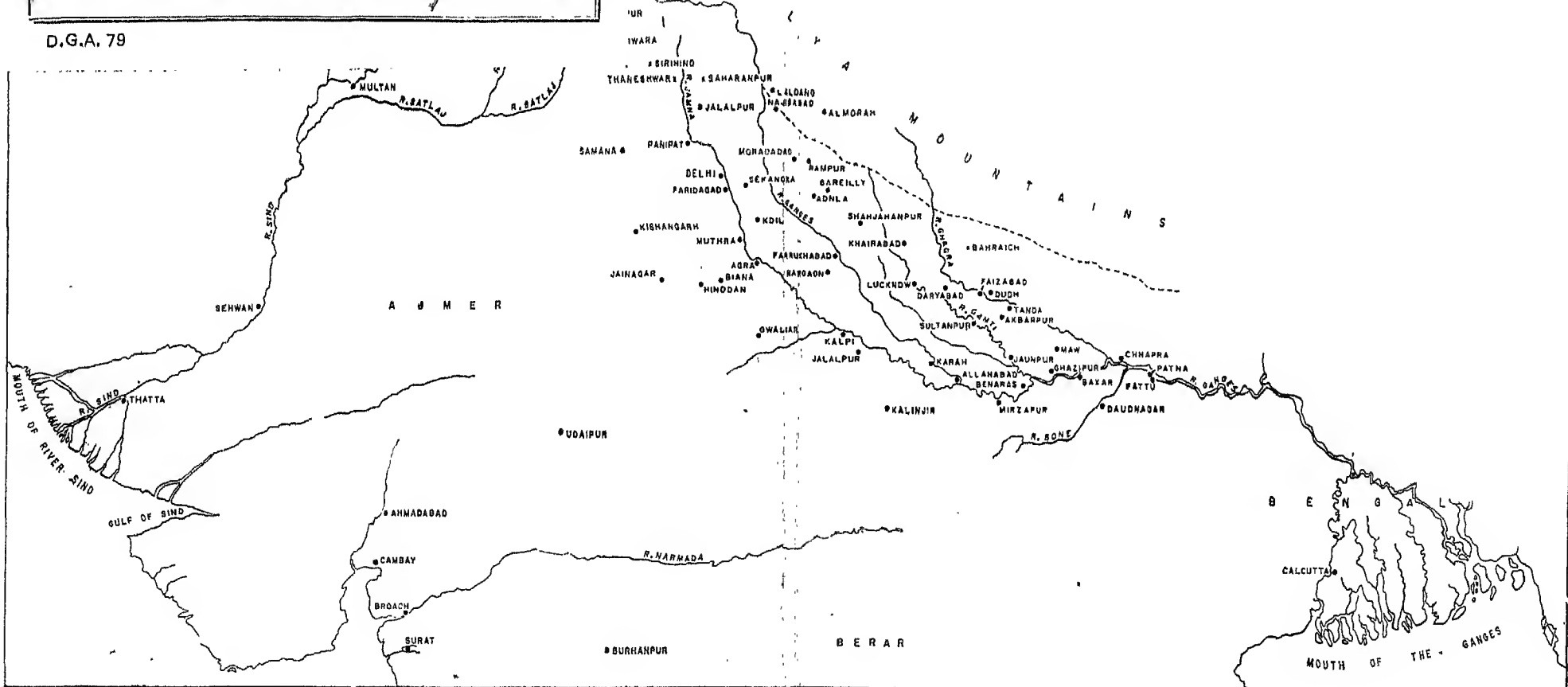
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PRINCIPAL INDUSTRIAL AND COMMERCIAL TOWNS
OF

HINDUSTAN (1556-1803)

(AFTER J. RENNELL)

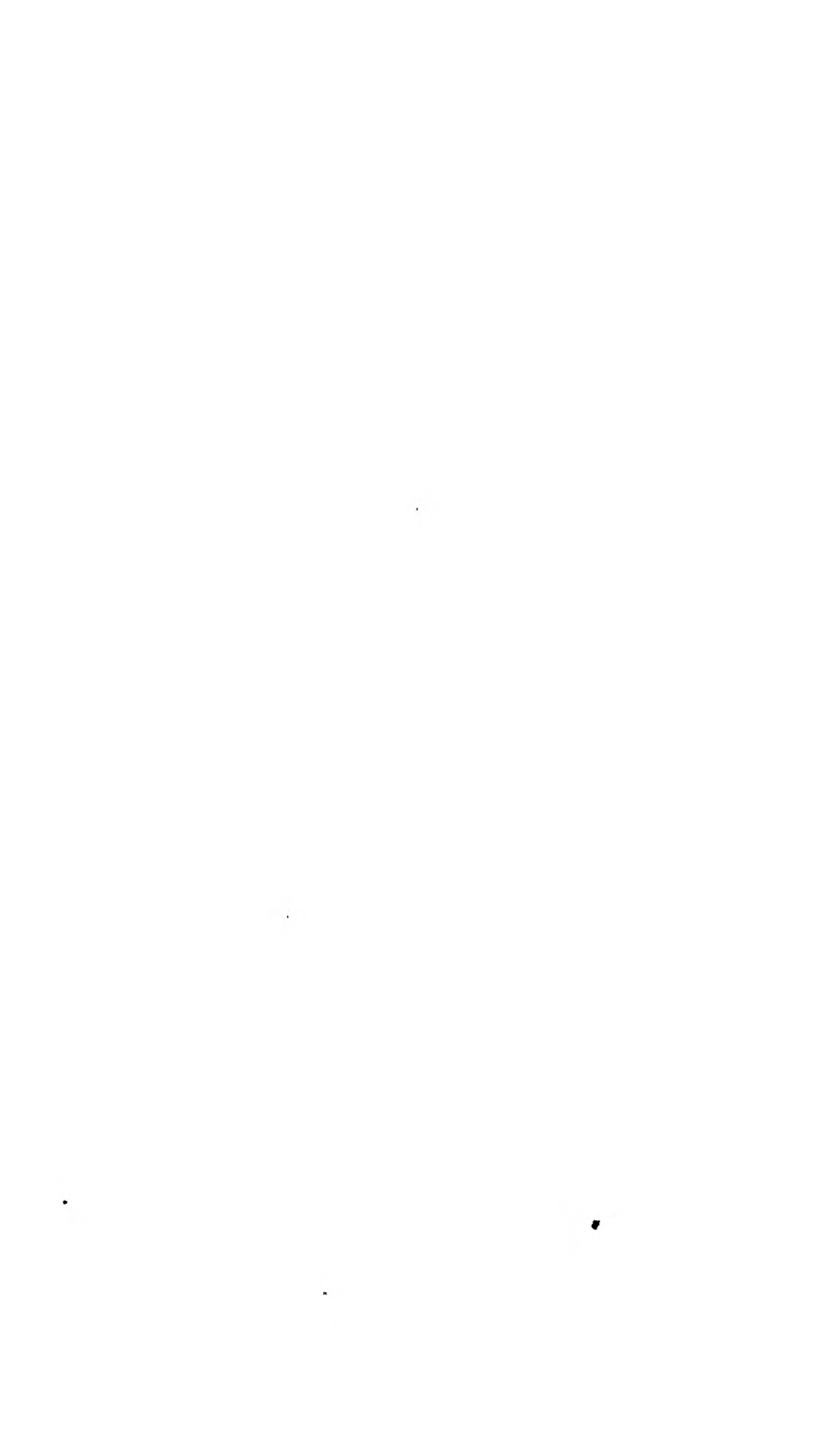
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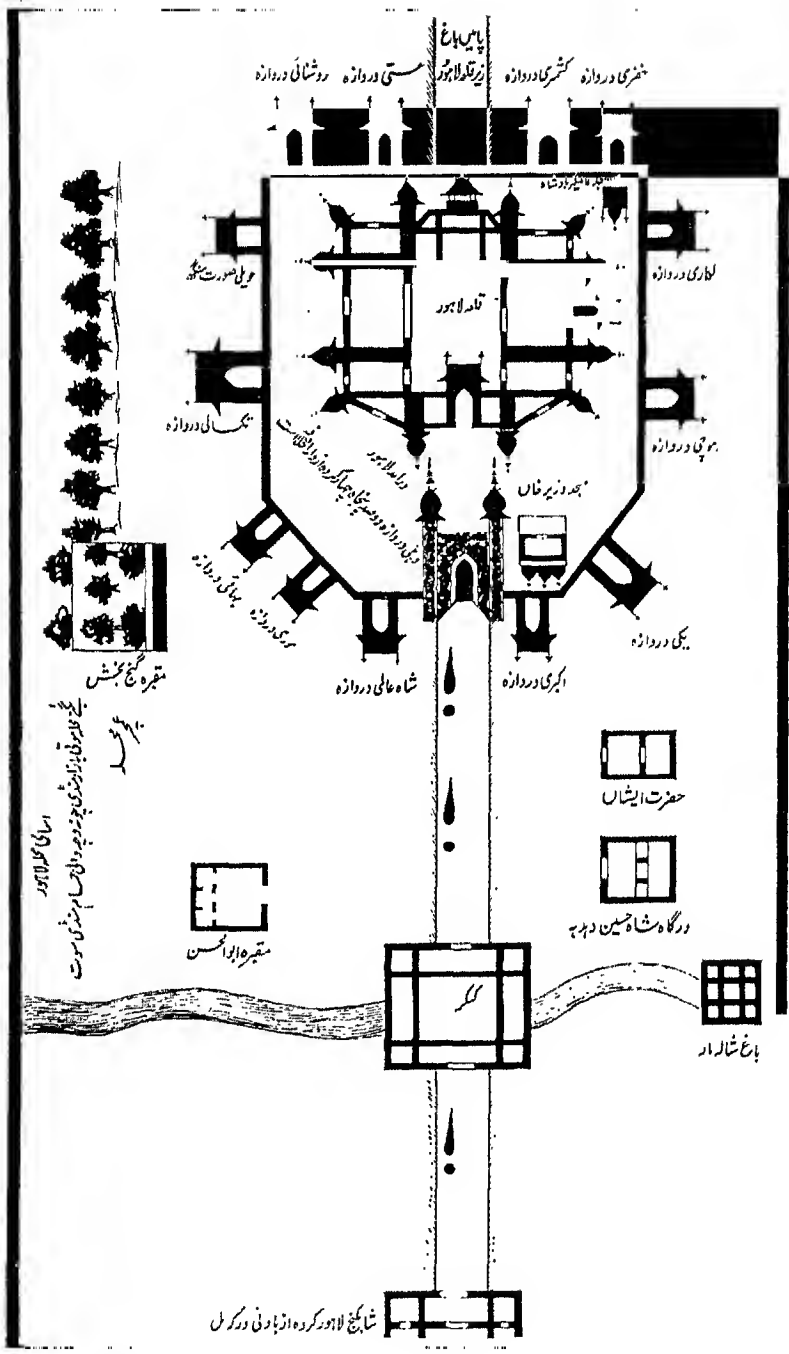


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URBAN CENTRES AND INDUSTRIES
IN UPPER INDIA

1556-1803





Lahore As Approached by a Traveller from Shahjahnabad
(See Route Map, p.260, footnote 295)

URBAN CENTRES AND INDUSTRIES IN UPPER INDIA

1556-1803

HAMEEDA KHATOON NAQVI

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To the memory

of my father

SYED NIHALUDDIN, M.SC.

PREFACE

EXCEPT for minor alterations here and there and the conclusion, this book is my doctoral thesis entitled *A Study of Urban Centres and Industries in the Central Provinces of Mughal Empire between 1556 and 1803*, presented at the School of Oriental and African Studies of London University in December 1964.

The era of the Mughal ascendancy in the history of India is marked with the crystallisation of all the highest political, social and cultural values of the medieval world. As such, the period has often been subjected to investigation. The urban economic life of Northern India (then called Hindustan), the provenance of the Mughal Empire has, however, so far not received the attention it deserves. The subject of the present study was, therefore, undertaken at the suggestion of my supervisor, Major J. B. Harrison.

The scope of the work is confined to a rather detailed study of the inner functioning of five leading cities of the Empire—Lahore, Delhi, Agra, Banaras and Patna. While the first three of them had become pre-eminent by virtue of their metropolitan character, the last two emerge as the most important commercial centres of Hindustan. In the course of time they all had developed an independent economy of their own. But as this viability was achieved by means of their industrial output and commercial traffic, the second part of the book is devoted to a treatment of some of the major industries of the region under review. Among these the ubiquitous cotton textiles along with its allied industries has been, as far as material permitted, covered at length.

I am deeply grateful to Major J. B. Harrison, whose valuable suggestions and constant encouragement guided the best part of my thesis. I am also indebted to Dr. Riazul Islam and Dr. R. More, who took great pains to be of help to me in the later stages of my work. I should also acknowledge my gratitude to the staff of the libraries of the School of Oriental and African Studies, India Office, British Museum and Victoria Albert Museum in London, Asiatic Society of Bengal and Indian Statistical Institute, in Calcutta. All of them extended their sincere co-

operation and allowed me the use of their valuable collections. Finally, I am deeply obliged to my brothers Dr. A. U. Syed and Mr. Kamaluddin Syed, who with their kind consideration made my stay in London very pleasant.

H. K. N.

ABBREVIATIONS

<i>A. A.</i>	<i>Ā'in-i-Akbari</i> by 'ALLĀMĪ ABUL FAZL
Badaoni	<i>Muntakhebāt-ut-Tawārikh</i> by Abdul Qadir Badāoni
<i>B. B. of Rev. and Misc. Peds.</i>	<i>Bengal Board of Revenue Appendix Consultations</i>
<i>E. F.</i>	<i>English Factories in India</i> edited by W. Foster
<i>Mir'āt</i>	<i>Mir'at-ul-Istelāh</i> by Anand Ram Mukhlis
<i>Nuskha</i>	<i>Nuskha-d-Khulāsat-ul-Mujarrebāt</i>
<i>Dastur</i>	<i>Dastūr-ul-'amal</i> by Bhayya Ānand Rām
<i>Dastur, Add.</i>	<i>Dastūr-ul-amal</i> , Anonymous, Br. Mus. ms. Add. 6698
J. R. A. S.	Journal of Royal Asiatic Society
J. A. S. B.	Journal of Asiatic Society of Bengal
J. I. T. H.	Journal of Indian Textile History, Ahmadabad
J. B. O. R. S.	Journal of Bihar and Orissa Research Society
I. J. E.	Indian Journal of Economics

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INTRODUCTION

THE period of this study, from 1556 to 1802, is a long one, the area surveyed, Lahore to Patna, is wide and the subject, the economic life of northern India, is a large one. Some explanation of these choices may seem, therefore, an appropriate introduction to the present work.

All divisions of historical times are defensible in general terms rather than in detail. The dates here chosen represent a belief that Mughal rule introduced a new vigorous order in northern India in many fields. The Mughals built, it is obvious, upon foundations which others had laid. In part these were the work of the deep-rooted, slow-moving, rather isolated Hindu civilization. The rural pattern of peasant cultivators, village *zamindārs*, chiefs and rajas, and the interchange of services under the *Jajmāni* system,¹ provided typical aspects of that civilization. In the towns and to a lesser extent in the countryside further foundations had been laid by newcomers from the wider Islamic world, by the military ruling groups of the Turko-Pathan Sultans, by their attendant officials and professional men, by immigrant artisans and by the *Sūfi* orders. Upon these foundations, the Mughals built a structure distinctively their own. This is visibly so in the fields of painting and architecture, no less so in the field of religion, even to those living through the changes. And though historians may dispute the originality of the Mughal administrative methods, few dispute that the Great Mughals at least instilled a new life in the old forms. The Mughal era thus forms a climax to the accumulated experience of "Medieval" north India.

The political unity, the comparative order and stability which the Mughals spread across north India led to a notable revival in economic life. Their era, therefore, provides a suitable framework within which an economic survey may be attempted. The difficult question is to decide when to close the study, when the Mughal impulse died away, when Lahore, Delhi, Agra or Lucknow

¹ Wiser, W. H., *The Hindu Jajmani System*, Lucknow, 1958, pp. xvii, xviii.

ceased to be effective centres of an empire? The fall of Delhi to the British in 1802 is culturally too early a date, politically perhaps too late, but it is hoped that for the purpose of this study not without validity of a closing date.

The economic history of India in the 17th and 18th centuries has so far been studied in a very uneven manner. The first generation of historians being English, or more rarely Portuguese or French, naturally studied with special interest the European trade with India. Indian historians trained in the West have often followed suit. Moreover, the fullest, the most easily accessible material on Indian economic life is provided by the records of the European East India Companies. So while many economic studies of Bengal, Coromondal and western India have appeared, little attention has been paid to north India, to the heart of the Mughal empire. Yet for the whole of the period discussed in this work, the centre of political gravity lay somewhere between Lahore and Agra, the administrative and financial structure found its focus there, and in Lahore, Delhi and Agra, and to a lesser extent in Lucknow, Benaras and Allahabad, were found great concentrations of population, production and consumption. This study attempts to look at north India as an economic region, whose trade was directed inwards to the capital cities of the Mughal empire, which formed, in varying degrees, the hinterland of Delhi. The trade statistics do not exist which would permit any accurate delimitation of that hinterland, but all that is known about the size of the cities and the Mughal revenue system suggests that much of north India must have looked to Delhi for its market and its supplies. This is the assumption behind the choice of the area to be studied, and the date at which to close. The advance of the British power from Bengal to Delhi meant that after 1802 the revenue system and the commercial life of the Gangetic valley acquired a new centre, not inland, but in the port of Calcutta.

As will be seen from the preface, this study falls into two main sections, the one a study of certain cities, the other of certain major industries. The cities of northern India have been written about by various authors, but very rarely have they been treated as social or economic phenomena. They have been described in guide books, their architecture and fortifications have been studied, they have been the back-cloth for political

studies. But despite their dominant position, islands of power, wealth and manufacture in an agrarian sea, they have attracted little attention from historians. Yet the *Sultans* devoted much attention to fostering them, whether they were of ancient origin like Qanauj, Benaras or Delhi, or of recent growth like Jaunpur or Agra, and the Mughals were equally meticulous about their administration and defence.

Here, therefore, the attempt will be made to study their inner functioning in a historical context. Their location, means of communication and provisioning, their industries and commerce will be studied and in particular their role in the Mughal empire. For, though once any nucleus of inhabitants has expanded to form a city, it must share with other cities many common features, it will also have a dominant function, or combination of functions, which distinguishes it from other urban centres. Benaras and Muttra were noted for their manufactures, Lahore and Patna as trading centres; and of course Lahore, Agra, Allahabad and Patna grew notably when they became administrative capital, imperial or provincial. W. H. Moreland has made occasional references to the varying aspects of these cities; here the attempt will be made to consider them in a more systematic manner, in so far as the sources available permit.

There are no detailed statistics from which to assess the relative importance of Mughal cities or to ascertain the size of their population. (This is the more disappointing as the *Ā'in-i-Akbari* frequently states that the *kotwāls* and other local officials were enjoined to maintain census figures for the area under their jurisdiction.) It is known that a few cities, such as Badayun, Biana or Fatehpur Sikri decayed and others sprang up or, like Allahabad, achieved a new importance. But the total number probably did not greatly alter. Indeed, in Uttar Pradesh there is no town or city, to this day, other than Kanpur, which was not already in existence as an urban centre in Mughal times. Since so many centres were already in existence, it is not possible to discuss them all, more especially as our material is mainly descriptive and rather haphazard in its fullness.² Detailed

² Material for many more cities, such as Samana, Sirhind, Muttra, Najibabad, Farrukhabad, Faizabad, Lucknow and Allahabad was collected

* but owing to lack of space has not been included in this work.

attention has, therefore, been concentrated on the three capital cities of Agra, Delhi and Lahore, which were always of major importance, and upon Patna and Benaras, as examples of leading commercial centres, whose position as major transit depôts between Bengal and Upper India seems unchallenged till the conclusion of our period. Before the integration of Bengal into the empire other western cities such as Panipat or Gwalior may have had a similar importance, but dearth of material prevents any attempt at comparison and Benaras and Patna must stand out as representatives of trading and manufacturing cities.

Moreland placed considerable stress upon the cities as centres of consumption, but they were also great centres of manufacture. From Akbar's day to that of Aurangzeb stress was constantly laid upon the production of valuable crops whose manufacture into finished goods would be the task of urban centres. Rural production of cottons or sugar undoubtedly took place, but it devolved upon the towns to transform the bulk of raw materials produced in the rural areas into finished goods. Had they not fulfilled this vital economic function, had they been no more than parasites, mere consumers of rural wealth, they could not have so long survived and flourished.

It is because the cities were great industrial centres that in the second part of the book attention has been turned to certain selected industries.³ Industrial production was much too wide a field to cover, since India relied very little on the imports of manufactured goods. Within the space available, therefore, attention has been turned to those industries which were of greatest magnitude and most widely diffused within the region. Thus the ubiquitous cotton textiles industry, the major industry in northern and other parts of India, has been considered as exhaustively as the materials permitted, as have been the associated industries of dyeing, printing and carpet weaving. The Indian cotton industry of the Mughal period, because of its importance and wide diffusion, has received much attention. But since most of the sources used have been European, only those areas engaged in the export trade have been dealt with—north Indian industries have been relegated to the background. The attempt is, there-

³ Besides the industries covered in the present work, materials for some other ones, such as building was collected, but could not be incorporated here on account of the delimitation of the bulk of the thesis. *

fore, made here to establish what were the main centres of manufactures, the sources of raw materials, the techniques of weaving, dyeing and finishing and the use to which the finished article was put, in other words, to give to the chief industry of a major Indian region the attention which it deserves. Other industries, metalware, sugar, salt and paper, have been considered here on the same pattern as cotton textile industry, though not with equal fullness owing to both lack of material and space. Moreover, the position of any of these five industries was not at all on a par with the cotton textile industry in our region and period.

The treatment of the textile and other industries and of the role and the functioning of the cities has not been that of an economist. Since even a general descriptive reconstruction of the main features of economic life in the region has scarcely been available, the first task has been to gather and present such material as could be discovered. The gaps are still large, there are few and not very scientific statements about the population of cities, or the numbers engaged in particular industries, no regular series of commodity prices or wage rates are to be found, no continuation of the data given in the *Ā'in-i-Akbārī*, though stray references make it clear that all administrative units were enjoined to maintain and send in current local price lists. We are equally in the dark about the organisation of the industry—whether, for example, the urban weaver worked in his own home, in his *kārkhāna* or in the open fields outside the city walls. Numerous kindred questions require elucidation. Certain tentative hypotheses have been put forward, but they are still tentative and provide no basis for any attempt at formal economic analysis.

The sources bearing on the subject are very fragmentary, and it has been necessary to search through a very large number of works, some of them obscure treatises, not even in good condition, to collect the basic material for the study. The one compensatory factor is that most of the material is devoid of any obvious bias or distortion.

The indigenous sources, mainly in Persian, may be classified as official and private works. Among the former are found political histories, or rather chronicles in which incidental observations on our subject are embodied. These works begin-

ning with *Bābarnāmah* and *Akbarnāmah* in the sixteenth century continue to *Bahādurshāhnāmah* in the early eighteenth century and thenceforward more erratically in the form of *Akhbārāt*. Then there are the statistical records and administrative manuals, such as the *Ā'in-i-Akbārī* and the *Dastur ul 'amals*. Of these the *Ā'in-i-Akbārī* stands out pre-eminent, rich in detail, copious in information, even though in Abul Fazl's sections ornately penned. The pity is that Akbar's successors failed to adopt and adhere to the model thus set before them. The *Dastur ul 'amals*, though available for later dates, mainly relate to land revenue, salaries and the army and have hardly been of any use to us. One other official work did prove of considerable value, especially in elucidating points of organisation, the well-known *Fatāwā i 'Ālamgīrī*.

To supplement these official works there are a wide variety of other Persian works. Some are well known, for example, the topographical works, *Haft Iqlīm*, *Khulāsatul Tawārīkh*, *Hadiqatul Aqālīm*, *Bahjat ul 'Ālam*, *Haqiqat hā'i Hindustan*. Other types of works, some less well known and hitherto less used are the *Bayāz i Khushbū'ī*, *Risāla i zir'at o falāhat*, and *Qānun i Navīsindīgī*. Of these the *Mir'āt ul Istelāh* of Ānand Rām Mukhlis deserves especial notice. This is a lexicon and has been often referred to by Urdu litterateurs, but its value as a historical source has seldom been recognised. Similarly, *Mir'āt i Āftābnuma* has been used amongst a few others by Sir Syed Ahmad Khan in his *Āsār us sanādīd*.

Several other works not previously used by historians have also proved useful. The *'Ajā'ib i Duniya*, *Bahār i Sukhan*, *Tazkira i Nudrat*, *Majmū'at us Sanā'ī*, the Travel Accounts of Sheikh Rahim Ali and Ghulam Mohammad Khan, *Chamanistān*, *Ahwāl i Shaher i Akbarābād*, *Khulāsa i Farah Bakhsh*⁴ and *Tarīkh i Farrukhābād*, incorporate valuable evidence about our cities and industries. Then there is a medical treatise, the *Nuskha Khulāsatul Mujaṛrebāt* which incorporates a section on the dyeing of cotton fabrics. This was written between 1714 and 1767 and is in a language so simple and straightforward as to suggest a practical professional hand rather than a literary pen. The same is

⁴ This and the next work are only indirectly related to our work, as these actually contain histories of Faizabad and Farrukhabad cities and were originally used for collecting material on those two cities.

trac of the *Intekhāb az Saiyyāqnāmāh* compiled by Bhaiyya Anand Ram of Allahabad district, a private *dastur ul 'amals* full of most interesting material upon account keeping. It is evidently based upon first-hand experience as the author was the *nuskha navīs* for the town of Kara in the subah of Allahabad. He covers diverse subjects, illustrating each of them with examples derived from his professional career.

The second major category is that of foreign sources : travellers' accounts, the records of the European commercial companies operating in northern India and finally from 1765, those of the East India Company as an administrative body.

A series of European travellers, from Ralph Fitch in 1583 down to George Forster and W. Hodges in the last decades of the eighteenth century, visited north India and left accounts of what they saw. Their political comments are not always reliable, for they had no access to official documents, but their dissertations on Indian economic life have great value. They were free from preconceptions, interested as newcomers in many aspects of Indian life with which Persian writers were too familiar to comment upon. They often came to explore the commercial potentialities of the region and for that reason had a sharp eye for trade, industry and the amenities and facilities for business which an urban centre offered. They are not systematic in their writings, but the evidence they afford is in total most important.

Of the company records it is scarcely necessary to speak in detail ; any volume of the Factory Records Series edited by Sir William Forster will indicate the richness. Two points, however, should be made. First, for all the companies northern India was outside the main area of their interest and their information is thus incomplete. Secondly, incomplete though it is, it is, nevertheless, so full in comparison with the Persian records that it becomes too easy to give a disproportionate emphasis to European trade and to neglect the indigenous trade, in total far more massive. The main hope of the historian must be that more indigenous material will come to light. A recent discovery suggests that further research might be fruitful, for an Indian scholar working at the Hague has come across Dutch transcripts of all the ledger entries in the Mughal custom house at Hugli for considerable periods in the late seventeenth and early

eighteenth centuries.⁵ However, some volumes of the *Dutch Records at the Hague* being translated by C. Danvers and found in the India Office Library have profitably been used here. The Dutch Factor at Agra F. Pelsaert's work *Jahangir's India* rendered in English by W. H. Morland and Geyl contains mass of useful and valuable material. As such it has very frequently been drawn upon by scholars working on 17th century India, for bits of information and pieces of authentic evidence. But apart from this its real value lies in the integrated picture of the city of Agra in its various aspects and the outstanding features of other urban centres of the Empire. The city of Agra, the capital of the Empire, has in fact been treated by Pelsaert as an example to illustrate what was the usual character, composition, resources, industry, commercial intercourse and social activities and so on of a Mughal urban centre. Being an active trader, he naturally deals in greater detail with the economic life of this city as well as of others. This contemporary account leaves no room for doubt that the Mughal cities, at any rate the major ones, were independent living entities with a sound economic base.

Finally, use has been made of certain of the *Board of Revenue Consultations* dating from the period when the East India Company had become an Indian power. These have proved useful in building up the pattern of trade in Patna and to a lesser extent in Benaras and in studying the internal trade of India in copper and salt after 1765. The printed work *Papers Relating to India*, London 1787, also yielded much useful information, including the list of prices fixed at Benaras by Warren Hastings in 1781.

⁵ Most of the Dutch and French material was beyond my grasp for linguistic reasons, except when translations existed.

CHAPTER I

THE CITIES

It has generally been asserted that Muslim rulers in India had an urban bias.¹ Though made in a different context, the truth of the statement is fully borne out when we look at the multitude of the urban centres that sprang to life during their period of supremacy especially in northern India, then termed as *Hindustān*. Indeed the closely marked cities and towns on the modern maps, with very few exceptions like Cawnpore, go back to the centuries under review. Not only did the Muslim rulers found new cities and towns,² but they also gave a new lease of life to the struggling ones.³ Each city's rise and decline depended on a combination of factors such as political stability, industrial growth, commercial feasibility, or strategic importance. A study of the factors which brought them into prominence will also help in elucidating the causes of their eventual decline. For example, if Faizabad or Najibabad owed their growth to being administrative centres or to their commercial feasibility, the removal of these factors would naturally lead to their decay.

The Mughal emperors were as zealous as were their predecessors in promoting the progress of the existing towns and cities and in founding new ones. Thus, while the existing cities of Agra, Lahore, Delhi and Patna were raised to a much higher level, Allahabad,⁴ Fatehpur Sikri,⁵ Gujarat⁶ (in the subah of Lahore) and Attock, Benaras⁷ owed their foundation to Emperor Akbar; Faridabad was founded in the same reign by Sheikh Farid Bukhari,⁸ later on entitled Murtaza Khan. The number of towns

¹ To quote just one instance here, see Sarkar, *Mughal Administration*, Patna, 1920, tr. by Sarkar, Calcutta, 1920, p. 40.

² Such as Agra or Jaunpur, etc.

³ For example Lahore, Delhi or Qanauj.

⁴ *A.A.* tr. by Jarrett and Sarkar, Calcutta 1949, II, 169; Thevenot, *Indian Travels*, New Delhi, 1949, 92; *Khulāsāt ut Tawārikh*, by Sujān Rai, tr. by Sarkar, Calcutta, 1920, p. 27.

⁵ *A.A.* II, 191; De Laet, *The Empire of the Great Mogol*, Bombay, 1928, 41; *A.N.*, tr. by H. Beveridge, Calcutta, 1939, II, 531.

⁶ *Khulāsāt*, 98; *Haqiqat hāi Hindustān*, L. N. Shafiq, Ethe. 426, f. 64b.

⁷ *A.N.* III, 520-21. ⁸ *A.A.* I, 415.

founded in the subsequent reigns covers a long list, such as Farrukhabad,⁹ Moradabad,¹⁰ Shikohabad,¹¹ Najibabad,¹² Faizabad,¹³ and so on. As all these towns cannot be covered here, only a few have been selected and these are naturally the most prominent ones, namely Delhi, Lahore, Agra, Patna and Benaras.

CAPITAL CITIES

Among the prominent cities during the Mughal rule, Delhi, Lahore and Agra stand out sharply from the rest. It is interesting to note that in a region extending from Rājmaḥal in the east to Kābul in the west, embracing as many as nine full-sized provinces (of emperor Akbar)¹⁴ and covering a distance of more than two thousand miles, these three leading cities should be concentrated within a distance of three hundred miles. Evidently one of the principal factors in their rise to such eminence was their metropolitan character which they enjoyed by turns.

The origin of Delhi is lost in remote antiquity.¹⁵ From the earliest period, through the period of independent Muslim rule (beginning 1206) when it was the metropolis of a prosperous empire, Delhi saw several changes in location.¹⁶ Perhaps the

⁹ G. Md. Khan, *Travels in Upper Hindustān*, Ethé, 51a; *Ḥaḍīqat ul' Aqālīm*, 172; S. Md. Wali Ullāh, *Tārīkh i Farrukhābād*, Or, 1718, pp. 1-2, Irvine, *The Bangash Nawābs of Farrukhābād*, Calcutta, p. 280.

¹⁰ *Ḥaḍīqat*, p. 138; *Mir'āt Aftāb Numā*, Shāh Nawāz Khan, f. 269a.

¹¹ W. Hodges, *Travels in India During 1780, 1781, 1782 and 1783*, London, 1793, pp. 111, 112.

¹² G. Forsters, *Travels; A Journey from Bengal to England*, London, 1798, Vol. I, p. 190; *An Account of Najibuddaulah* by Nuruddin, Aligarh, p. 137-8.

¹³ *Emādatus S'ādāt*, by Ghulām 'Alī Naqvi, f. 171a; G. Md. Khan, 64a; *Ḥaḍīqat*, 152; *Farh Bakhsh*, by Mohammad Faiz Bakhsh, Or, 1015, f. 150b.

¹⁴ *A.A.* II, p. 115.

¹⁵ *Mir'āt i Aftābnumā* discusses the origin of Delhi at some length and puts forward two theories regarding the date of its foundation, see f. 256b. Sir Syed Ahmad Khan in his *Āsārus Sanādīd*, Shahajahanabad, 1852 (Urdu), apparently accepts the second theory, *Āsār*. II, 8. Cunningham does the same and on the authority of Firishta tentatively suggests the date as 57 B.C. *Archæological Survey of India*, by A. Cunningham, Simla, 1871, Vol. I, p. 140.

¹⁶ *A.A.* II, 278-9.

preference for a new site to the earlier one was in conformity with the change in the course of river Jamna on whose bank it is situated. Delhi continued as capital till 1506. In the course of these three centuries of uninterrupted imperial patronage, the city had struck deep roots which enabled it to endure even when the court and camp were removed from here. No doubt during the next century and a quarter too there were interludes of imperial attention; for example, Emperor Humayun founded a new city naming it *Dīn Panāh*,¹⁷ Sher Shah Suri built yet another city between *Dīn Panāh* and Firozabād encircling it with a stone and mortar city wall¹⁸ (in part still extant), and Sultān Salīm Shāh Sur constructed the Salimgarh fort.¹⁹ But these interludes were too brief and spasmodic to exercise any substantial favourable effect on the city in general. In spite of its bereaved position for over a century, the sources of the later 16th and 17th centuries reveal that it was still a very great and very rich city.²⁰ The Mughal emperors who loved Delhi kept its fort and the city in general in good repair.²¹ Even as late as 1630, it was reported to have been two kos in length.²² The evidence suggests that Delhi, though no longer the capital, hence certainly inferior to both its rivals, had otherwise a normal life, which was considerably active.

The next favourable turn in the city's fortunes came when emperor Shāh Jahān transferred his capital here in 1054-1638,²³ and thus revitalised its ebbing strength. Once more a new site was chosen on the west bank of Jamna and the new city that grew up was named Jahānābād or Shāhjahānābād.²⁴ For the

¹⁷ *Haft Aqlīm*, Amīn Ahmad Rāzi, I.O.L. Ms. Ethe., 725, 3143, I, 153a; *A.A.* II, 279.

¹⁸ A. Q. Badaoni, *Muntakhebāt-ut-Tawārikh*, tr. Lowe, Calcutta, 1925, I, 472.

¹⁹ *A.A.* I, 456.

²⁰ *Commentary* by Monserrate, tr. Hoyland and Banerji, Oxford, 1922, 95; Purchas, *Purchas and his Pilgrims*, London, 1626, Vol. V. p. 530.

²¹ Jourdain, *The Journal of Jourdain*, edited by W. Foster, Hakluyt Society, Series II, Vol. XVI, p. 164.

²² De Laet, p. 48.

²³ *Bāhār i Sukhan*, by Md. Šāleh Kamboh, Ms. Ethe, 2090, f. 131a.

²⁴ *Bāhār i Sukhan*, 131a-b; Tavernier, *Travels in India*, tr. V. Ball, London, 1899, Vol. I, 96; Bernier, *Travels in Mughal Empire*, 1656-68, tr. A. Constable, London, 1891, Vol. I, p. 241.

remaining twenty years of his reign the emperor devoted his energy and resources to the embellishment of his new capital.²⁵ The old part of the city was separated by a simple wall,²⁶ and when viewed with the new extension inclusive, the city certainly appeared very large.²⁷ The next emperor Aurangzeb, too, graced the city with his court and camp till 1679.²⁸ This half a century of tranquillity coupled with imperial care and attention was a great boon to Delhi, for it enabled the city to conserve strength for facing the adversities of the subsequent century.

The eighteenth century was for Shāhjahānābād a period of unchecked decline. Within a decade of emperor Aurangzeb's death (in 1707), the Mughal rulers were reduced to nonentities whose sole function revolved round "sitting on the throne and wearing the imperial crown."²⁹ This regime of titular rulers, each surpassing the other in incompetence and pusillanimity, let loose anarchy, plunder and chaos all round. Delhi by virtue of being the capital was the worst victim of the prevailing general disorder. Shāhjahānābād was being stripped of its glories by a slow and steady decline punctuated only too frequently by violence of the worst type, such as the occasional Marhatta attacks, Nādir Shāh's invasions, Ahmad Shāh Abdālī's repeated incur-

²⁵ *Bahār i Sukhan*, 131a-143b. ²⁶ Tavernier, I, 96.

²⁷ Bernier, I, 242.

²⁸ J. N. Sarkar, *History of Aurangzeb*, Calcutta, 1912, Vol. III, p. 379.

²⁹ Kāmwar Khān, 940; Warīd, 44; both quoted by W. Irvine in *Later Mughals*, edited by J. N. Sarkar, Calcutta, 1922, Vol. II, p. 263. For a brief history of the Mughals from 1707 onwards see, in addition to *Later Mughals*, Sarkar's *Fall of the Mughal Empire*, in 3 vols., Calcutta, 1932.

The persistence of the centrifugal states of 18th century to maintain the nominal Mughal rule actually reflects the utter hollowness of the ruling powers. Take, for example, the Marhattas who militarily were perhaps the strongest at the time and yet they too desisted from occupying the throne of Delhi even after inflicting crushing defeat on the Mughals. No doubt, they were aliens for the people of northern India, but much more so were the English. Therefore, it follows that these newly formed principalities were really in no way better than the Mughals, they did not enjoy any firm basis with the help of which they could assume the imperial sceptre and expect to keep it. We know most of the political side of the picture, but it would perhaps be useful to examine the non-political factors involved in creating a situation where the Indian rulers had become so completely exhausted and devoid of vigour in spite of their military strength and all the chances in the world to extend their domain.

sions and perpetual strife between various chiefs. The fortitude and resilience of Delhi under such terrible circumstances was indeed remarkable. Each adverse incident seemed to pass off as a regrettable piece of misfortune and the city was up and about in no time with no apparent signs of the recent mishaps left. Nevertheless, these gradually added up, corroding its vitals and eventually breaking its backbone.

The scale of emigration from Delhi provides an index of its low fortunes. Several contingents that used to be stationed at Delhi withdrew to their own provinces such as that of the provincial rulers, thereby weakening its power of resistance. Again, men seeking their fortune by means of war had brighter prospects in the provinces and petty principalities that had arisen on the ruins of the Mughal empire than at the capital; thus the Pathān immigrants joined more frequently the nawābs of Bangash, Najibābād or enlisted with the Ruhela chiefs.^{29a} Further, the same trend was discernible even amongst the people of peaceful occupations. Thus the merchants of substance, finding the city too insecure, established themselves elsewhere like Agra.³⁰ Even artisans like weavers in carpet,³¹ and dyers³² betook themselves to the less troubled areas of Patna and Berar. The straitened condition of the imperial treasury led many individuals, so far directly or indirectly attached to the court, to seek employment elsewhere. Thus the family of Ghulām Husain Khan (author of the *Seirul Mutākherīn*), selling their house and winding up all their assets, left for Bengal.³³ Groups of men from Shāhjahānābād arrived at the court of Nawāb Shujauddaulah where they found service and settled down.³⁴ Even the Nawāb's widow was able

^{29a} Again, about four to five thousand men from Shahjahanabad had joined Nawab Shujauddaulah's army forming a regular corps. They were paid a much higher salary of Rs. 15 a month. *Seirul Mutakherin*, IV, 76.

³⁰ Sarkar, *Fall of the Mughal Empire*, III, 408, also see Moinul Huq, *A History of the Freedom Movement 1707-1947*, Vol. I, Karachi, 1957, 270.

³¹ F. Buchanan, *An Account of the Districts of Bihar and Patna in 1811-12*, Vol. II, 656.

³² P. Jaykar, A Neglected Group, *Journal of Indian Textile History*, 1955, Vol. I, p. 57.

³³ Ghulām Husain Khan, *Seirul Mutākherīn*, tr. Nola Manus, Calcutta, Madras, 1926, Vol. IV, p. 88.

³⁴ *Makātib i Lachmī Narain*, Newal Kishore Press, Lucknow, p. 5.

to employ several *Hakims* and learned men from Shāhjahānābād in her establishment at Faizabad.³⁵ The influx of poets and intellectuals at Lucknow Court from Delhi and surrounding areas in the last decades of the 18th and early 19th centuries is common knowledge. In brief, the later half of the 18th century was a period when people were moving out of Shāhjahānābād so that by c. 1200-1780s several of its *moḥallās* had been deserted,³⁶ and yet Ghulam Mohammad Khan in his *Travels* noticed more than sixty as some of the most flourishing ones, including about two dozen large bazars.³⁷ "Indeed", he remarks, "I found the city deserted; however, even in its deserted state it is superior to many another flourishing city."³⁸

Lahore, situated on the eastern limit of the Ghaznavid dominion, was developed from a village into a camp town.³⁹ The subsequent Turko-Pathān rulers of Delhi were especially anxious to foster its growth as it now happened to be their western outpost. Sultan Balban (1266-86), for example, reconstructed its fort as a measure of defence and brought merchants and other inhabitants to live there.⁴⁰ Constant danger and frequent inroads of the Mongols from the north-west during the 13th and early 14th centuries further emphasised its strategic importance. During the 14th century (after the opening decade), Lahore had a long period of peace. After Timur's whirlwind invasion at the turn of the century, there was again a long period of freedom from foreign incursions, though Lahore and its neighbourhood were often scenes of local conflict. Babar's several attempts at seizing Lahore between 1520 and 1524, before finally occupying it did not seriously jeopardise its steady advance. Though originally forming a part of Humayun's possessions, it was fortunately, soon after his accession, occupied by Prince Kāmran,⁴¹ which saved it for quite a while from the subsequent ravages of the Mughal-Pathān contest for supremacy going on

³⁵ *Tārīkh i Farah Bakhsh* by Md. Faiz Bakhsh, tr. W. Hoey, Allahabad, 1888, Vol. II, p. 41.

³⁶ Ghulam Mohammad Khan, f. 37b.

³⁷ *Ibid.*, 37b-42b. ³⁸ *Ibid.*, 37b.

³⁹ *Cambridge History of India* by W. Haig, Cambridge, 1928, Vol. III, pp. 22, 29.

⁴⁰ *Tārīkh i Mubārak Shāhi* by Yahya Sirihindī, tr. by Basu, Baroda, 1932, p. 38.

⁴¹ *A.N.*, I, 124-5.

in Agra and its eastern provinces. Lahore, by the middle of the 16th century, had assumed the position and character of a first-rate city in the realm owing to its continual enjoyment of peace coupled with other favourable elements of progress that were still operative. It was noteworthy for its extent⁴² and was unrivalled by any Asian or European city in regard to its size, wealth and population.⁴³

The strategic importance of the city once again came into focus when the emperor Akbar, owing to the apprehension of an attack from 'Abdullah Khan of Bukhara,⁴⁴ shifted his residence with his court and camp to Lahore in 1584. The emperor stayed on at Lahore till the news of the Khan's death in 1598 had been duly received.⁴⁵ These fifteen years of imperial residence benefited Lahore greatly. Its fort was strengthened with brick masonry⁴⁶ in order to secure its defences. Besides, it gained in beauty and embellishments. Evidently, these circumstances contributed in further raising its non-metropolitan character to a higher level. Thus the early 17th century authorities, in addition to extolling its populousness and extent,⁴⁷ regarded it as the greatest city of the East,⁴⁸ surpassing even Constantinople.⁴⁹ The intermittent brief residences of the emperors Jahangir⁵⁰ and Shah Jahan further improved the appearance of Lahore⁵¹ and added stimulus to commercial activities in general. Several authorities of the period testify to the highly flourishing state of the city.⁵² About the end of Shah Jahan's reign, however, inordinately heavy rains for several successive seasons had already injured the city,⁵³ when a calamity of a more serious nature occurred. The river Ravi changing its course had withdrawn from the

⁴² *AA.* II, 317. ⁴³ *Commentary*, 159; *A.A.* II, 317.

⁴⁴ *A.N.* III, 748, 1102.

⁴⁵ *Ibid.*, 1102. ⁴⁶ *A.A.* I, 312. ⁴⁷ *Haft Aqlm*, I, 146a.

⁴⁸ W. Finch, *Early Travels in India*, edited by W. Foster, 1583-1619, Oxford, 1921, p. 161.

⁴⁹ T. Coryat, Foster, *op. cit.*, 243; *Ma'āsar i Rahīmī*, A. B. Nahāvandī, ed. Hidāyat Husain, Calcutta, 1912, Vol. II, p. 609.

⁵⁰ *Ma'āsar i Rahīmī*, II, 609-10. ⁵¹ *Bahār i Sukhan*, 149b-150a.

⁵² *Bahār i Sukhan*, 143b-149b; *The English Factories in India*, ed. W. Foster, Oxford, 1911, (1637-41), 134; *Chahār Chaman Brahman*, by Chander Bhān Brahman, Patiala Ms., I.O.L. Ethe. 2093, 920 ff. 116, ff. 58a-b; *'Ajā'ib i Duniyā*, Anonymous, Ms., I.O.L. Ethe. 728, no. 611, ff. 2b, ff. 181b-182a.

⁵³ Bernier, I, 384; Tavernier, I, 95.

fort about a league,⁵⁴ but it was now encroaching upon the city in the other direction. Therefore, emperor Aurangzeb built a two-kos-long strong embankment in order to prevent any further destruction by the river.⁵⁵ He also managed to recover part of the loss by means of repairs and constructions carried on for forty years and at an enormous expense.⁵⁶

But Aurangzeb's protracted stay in the Deccan (1682-1707) proved unfortunate for Lahore. Half-crushed Sikh insurgents, profiting by the emperor's absence, grew bolder and bolder. Emperor Bahadur Shah's attempts to check them were in vain. The growing weakness of the succeeding Mughal emperors provided increasing opportunities to Sikh freebooters to gather momentum. The imperial *subedārs* posted at Lahore failed to arrest their growth. Consequently, the Sikhs ravaged the city's hinterland and became a source of menace to traders and travellers alike. In despair the Mughal *subedārs* sought the help of Ahmad Shāh Abdālī whose several invasions, with a view to restoring the Mughal authority over this and the adjoining region^{56a} bore no worthwhile fruit. On the contrary, these repeated attacks only added to the general turbulence of the period. Evidently, these chaotic conditions hit hard at the prosperity of Lahore and it began to decline rapidly.⁵⁷ Commercial traffic could not be operated under these circumstances, with the result that the trade so far conducted through Lahore was diverted.⁵⁸ Thus by 1780 its greatness had faded and the Mughal supremacy was a thing of the past.⁵⁹ The city was partitioned amongst three Sikh chiefs, who shared all the revenue arising

⁵⁴ Bernier, I, 384; Tavernier, I, 95.

⁵⁵ *Khulāsāt*, 81; *Haqiqat*, 59b-60a. ⁵⁶ *Khulāsāt*, 81.

^{56a} *Shah Alam Nama*, Ghulam Ali Khan, Calcutta, 1914, p. 91; *An Historical Relation of the Rohilla Afghans in the Northern Provinces of Hindustan*, C. Hamilton, London, 1787, pp. 145, 146; *Hizle i Imam Wali Ullah Dehlvi Ki Ajmali Tarikh Ka Muqaddima* az Obaid Ullah Sindhi, Lahore, 1942; p. 47, n; S. Moinul Haq, op. cit., pp. 279-280; *The Muslim Community of Indo-Pakistan Sub-continent 610-1947*, Ishtiaq Husain Qureshi, Netherlands. 1962, pp. 181-182.

⁵⁷ This aspect is further considered under the Commerce of Lahore.

⁵⁸ For example to Jaipur, see H. R. Gupta, *Studies in the Later Mughal History of the Punjab 1707-93*, Lahore, 1944, pp. 149-50. For the foundation of Jaipur or "Jainagar" see G. Md. Khan, f. 98b.

⁵⁹ *Seirul Mutākherīn*, IV, 8.

from imposts, duties and even the mint within the city.⁶⁰ By 1797, related the traveller Sheikh Rahim Ali, the entire city population was confined within the fort; areas lying outside the fort were altogether deserted.⁶¹

Agra :⁶² It was founded as late as 1506, by Sultan Sikander Lodi who made it his capital.⁶³ Except for some brief intervals seen above, Agra continued as the seat of government until 1638. Thus, though of recent foundation, its rise under the attentive care of its successive sovereigns⁶⁴ was so rapid that by the third quarter of the century it had pushed ahead of its ancient rivals, Lahore and Delhi. Emperor Akbar, with his characteristic zeal, built a fort of red sandstone,⁶⁵ which along with the palace gave the impression of a great city.⁶⁶ The residences of the nobles, magazines and shops numbering about five hundred buildings in masonry were also built within the fort.⁶⁷ Indeed even the huts of the dependents—barbers, drug-sellers and all manner of common people—were encircled in the fort.⁶⁸

The travellers' accounts relating to the extent of the city do not seem reliable as there is a great divergence in regard to its dimensions, even when they happened to be writing more or less at about the same time.⁶⁹ Evidently, they just gave their vague

⁶⁰ Major Brown, *India Tracts containing a description of the Jungle Tarai Districts and A History of the Sikhs*, Blackfriars, 1788, p. vii.

⁶¹ *Travels of Sheikh Rahim 'Ali in 1211/1797 from Shāhjahānābād to Kabul*, ed. A. Q. Khan, MS. I.O.L. Ethe. 2726, No. 396, f. 14b.

⁶² Literally meaning way ahead, *Āge rāh*.

⁶³ *Makhazan i Afghāna*, by Ni'amatullah, tr. N. Ray, Shantiniketan, 1958, pp. 83-84; *Tūzuk i Jahāngīrī*, tr. A. Rogers and H. Beveridge, London, 1909, Vol. I, p. 4.

⁶⁴ *Haft Iqlīm*, I, 159b.

⁶⁵ *A.A.* II, 191; *Haft Aqlīm*, I, 159b; G. Md. Khan, 70a; Jahangir says it cost Rs. 35 lakhs and took 15 to 16 years to be completed. *Tuzuk*, I, 3;

⁶⁶ *Commentary*, 34; Jourdain, 163. ⁶⁷ *A.A.* II, 191.

⁶⁸ *Commentary*, 34.

⁶⁹ Monserrate says "4 miles in length, and 2 in breadth," *Commentary*, 34-5; Finch states it to be "5 cos in length," W. Finch, Foster, 182; and Manrique thought it to be "2 full leagues in length," Manrique, *Travels of F. S. Manrique*, 1629-1643, tr. Luard and Hosten, Vol. II, Hakluyt Society, 2nd series, LXI, Oxford, 1927, Vol. II, p. 152 (1 league=3 miles.); Pelsaert observed that the palaces of the aristocracy along the river extended to "6 kos or 3½ Holland miles" (p. 2), while Sikandra,

impressions and presumably had no way of checking their statements by actual measurement. Jahangir's statement has, therefore, been preferred. If any measurement of the city existed, the emperor would certainly know. According to him, the habitable part of the city extended on both sides of the river. The western side having the greater population had a circumference of seven *kos*⁷⁰ (about $17\frac{1}{2}$ miles), while the breadth was one *kos* ($2\frac{1}{2}$ miles). The circumference of the inhabited part on the other side of the river, towards the east, was two and a half *kos* in length and half a *kos* in breadth.⁷¹ It was semi-circular in appearance, stretching lengthwise along the river Jamna.⁷²

The very extent of the city reflects its populousness, which is further corroborated by several sources.⁷³ But Manrique is the only author who gives the population figure as "six hundred and sixty thousand excluding the foreigners who after filling ninety caravanserais spread out into private houses,"⁷⁴ that is about seven lakhs. No wonder, then, that notwithstanding its large extent, the city remained congested;⁷⁵ the throng in the lanes, streets and bazars was so great as to render movement difficult.⁷⁶ It was perhaps due to its large area and presumably larger population that the European travellers, in the absence of exact figures, made an attempt to impress its greatness by comparing it with those which they, until then, had regarded as the greatest cities in the world, such as London⁷⁷ or Cairo⁷⁸. On the other hand, Persian local writers contented themselves by just stating that it was one of the most eminent cities of India.⁷⁹

The location of the city, though eminently suitable in some respects, was not equally so from the climatic point of view, as the Rajputana desert lay too close to it. Evidently emperor Akbar

the part of the city lying on the other side of the river was "fully two *kos* long but not so broad." p. 5.

⁷⁰ *Tuzuk*, I, 3. One *kos* = $2\frac{1}{2}$ miles, Yule, 261, quoted by W. Irvine in *Manucci*, II, 442.

⁷¹ *Tuzuk*, I, 3. ⁷² W. Finch, Foster, 182; De laet, 37.

⁷³ *A.A.* II, 190-1; W. Finch, Foster, 182; De Laet, 37; *Tuzuk*, I, 3; Thevenot, *Indian Travels of Thevenot and Careri*, Indian Record Series, ed. S. Sen, New Delhi, 1949, p. 49; *Bahār i Sukhan*, 161a.

⁷⁴ *Manrique*, II, 152. ⁷⁵ *Tuzuk*, I, 3; Pelsaert, 1; De Laet, 37.

⁷⁶ *Tuzuk*, I, 3; W. Finch, Foster, 182.

⁷⁷ R. Fitch, *England's Pioneer to India*, ed. Ryley, London, 1899, p. 98.

⁷⁸ Jourdain, 162. ⁷⁹ *A.A.* II, 190-1; *Ma'āsar i Rahīmī*, II, 610.

had not been well advised in making it (specially the western part) the seat of his government. Though it is arguable whether the danger from the advancing desert was imminent as early as 1560, the total disregard of the circumstance nevertheless betrays an inadequate understanding of the geographical phenomenon by the contemporary scholars. The natural laws not being subject to imperial wishes had their own way. The spread of the desert had been affecting the western part of the city and by about the beginning of emperor Shah Jahan's reign the heat had become intolerable.⁸⁰ This occasioned the transfer of the capital to Delhi in 1638.⁸¹

The city does not seem to have been drastically affected by the removal of royal residence and court; at any rate no signs of weakness undermining it in general were perceptible at this stage. Apart from continual favourable observations of the European travellers visiting Agra in the later half of the 17th century, such as Tavernier⁸² and Bernier,⁸³ the local Persian accounts, including those of 'Amal Šāleh Kamboh⁸⁴ and Sujan Rāi (writing in 1685), pay tribute to its greatness, extent and populousness.⁸⁵ This would suggest that by 1638 the greatness of the city had struck deeper roots which were not entirely dependent upon its metropolitan character.

But the loss in the vigour of Empire proved too much for Agra to sustain its advance. Thus the tone of the authors after 1712 assumes a different note; they talk only of the present deserted state of the city and the glory that existed no more. The authors of *Bahjatul 'ālam*,⁸⁶ *Hadiqatul Aqālīm*,⁸⁷ and Hodges in his *Travels* testify to the declining state of the city.⁸⁸

⁸⁰ Thevenot, 49; *Bahjat ul'ālam* by Hakim Mahārat Khan, Ms., 10b., Ethc. 729 p. 69.

⁸¹ *Shāhjahān Nāmāh*, 'Amal Šāleh Kamboh, Calcutta, 1939, pp. 27-30.

⁸² Tavernier, I, 105; ⁸³ Bernier, I, 284, 285.

⁸⁴ *Bahār i Sukhan*, 161a; C. C. Brahman, 56b-57a. ⁸⁵ *Khulāsāt*, 23.

⁸⁶ *Bahjatul 'ālam* p. 69.

⁸⁷ *Hadiqatul aqālīm* by H. M. Allāh Yār Usmānī Bīlgrāmī, Lucknow, 1879, p. 161.

⁸⁸ Hodges, *Travels in India During 1780, 1781, 1782 and 1783*, London, 1793, pp. 48, 49. Incidentally two pictures painted by him in his *Views in India, 1781, 1782, 1783 and 1784*, I.O.L. Case 4.1. London, vividly portray the dilapidated state of its principal buildings and the general neglect in which the city had fallen. See nos. 15 of Part I and 11 of Part II.

In the course of the general confusion attending the 18th century political events, Agra changed hands several times,⁸⁹ which fact would further hasten the speed of decline. Sarkar, however, maintains that during the period of its occupation by the Jāts and Marhattas (under Mahādājī Scindia) up to 1787, it had become the most flourishing city in the erstwhile Mughal Empire, and many rich and noble families had settled down there in order to avoid the Delhi troubles.⁹⁰ Nevertheless, this could have been no more than a passing phase; the eminence of the city was fading. In 1787 it was captured by Ismā'il Khan,⁹¹ who himself fell soon after, so that its greatness sank rapidly with no prospects of recovery.

Location : Proximity to a river, preferably a navigable one, seems to have been the cardinal consideration in determining the location of medieval Indian cities. Such a situation was advantageous in more than one way. It reduced the defence measures, eased the problem of water supply⁹² and also served to keep the hot winds of the Indian summer relatively cool.⁹³ But above all, it facilitated the transportation of goods in and out of the urban centres. Though riverine routes were slower than land ones, this was offset by the cheapness, accommodation for much higher volume, and greater measure of security in such conveyances. Indeed, even during the palmy days of the Mughal rule the risk from robbers in areas surrounding the capital cities could never be altogether ruled out.⁹⁴

Thus we find that, while Lahore was situated on the bank of river Ravi,⁹⁵ Delhi⁹⁶ and Agra⁹⁷ flourished by the waters of river

⁸⁹ *Ahwāl i Shaher Akbarābād* by Mānik Chand, MS. Br. Mus. Or. 2030. pp. 15, 16.

⁹⁰ Sarkar, *Fall of the Mughal Empire*, III, 408. ⁹¹ Ibid.

⁹² Incidentally Ibn Khaldun makes out the same points, see his *Muqaddimah* tr. by Rosenthal, New York 1962, Vol. II, pp. 244, 246.

⁹³ For Lahore see Manrique, II, 191. ⁹⁴ Thevenot, 57.

⁹⁵ *A.A.* II, 315; Richard Steel and Crowther in *Purchas*, IV, p. 268; De Laet, 51; *Bahār-i-Sukhan*, 151b, *Khulāsat*, 80; *Mir'āt Aftābnuma*, 251a.

⁹⁶ *Commentary*, 95; W. Finch, Foster, 156; *Tazkira i Nudrat* has an article *Tawṣīf i Shāhjahānābād* by Hāji Khairullah, Ms. I.O.L. Eth. 676, see f. 76a; Tavernier, I, 96; *Khulāsat*, 3; *Hāqiqat*, 37b; Bernier, I, 245.

⁹⁷ *A.A.* II, 190; *Haft Aqlīm*, 159b; *Tuzuk*, I, 3; *'Ajā'ib*, 180b; *Commentary*, 33; Jourdain, 162; C. C. Brahman, 56b; *Khulāsat*, 23; *Bahjat*, 69; *Hāqiqat*, 161; Hodges, *Travels*, 117; G. Md. Khan, 70a; *Mir'āt Aftābnuma*, 264b.

Jamna. The Ravi could carry a large trade in shallow draught vessels⁹⁸ of 600 tons and upwards⁹⁹ or, as De Laet says, 60 dolia, and more.¹⁰⁰ Issuing from Kashmir and passing through Lahore, this river effected its confluence with river Sind at Multan and thence as far as Tattah served as the usual medium for the transport of goods.¹⁰¹ Thus by means of this river Lahore was connected with Kashmir at one end and Sind along with Multan at the other. This latter circumstance helped Lahore to overcome, at least partly, its naturally land-locked position by an easy riverine access to the Sind port of Lahori Bunder.¹⁰² Therefore, apart from handling its own imports and exports,¹⁰³ Lahore acted as a medium for transmitting goods to and from Kashmir¹⁰⁴ and other regions lying contiguous to its eastern and western sides.

Similarly river Jamna flowing through the city of Agra¹⁰⁵ connected it with Sonargaon¹⁰⁶ in the east, covering the entire area lying in between the two points. As Delhi is situated on the western bank of the same river, goods arriving at Agra from the east could easily be passed on to Delhi. Jamna, according to the much earlier evidence of Shams Siraj Afif (14th century), could accommodate large and broad vessels so that some of them could contain five thousand maunds of grain, still larger ones could carry up to seven thousand maunds of grain, while the smaller ones were good enough for just about two thousand maunds.¹⁰⁷ This would further suggest that Delhi too had direct navigational link with its rich eastern provinces. The river was navigable throughout the year¹⁰⁸ to boats up to 100 tons burthen.¹⁰⁹

⁹⁸ Pelsaert, *Jahangir's India* tr. by Moreland and Geyl, Cambridge, 1925, p. 31.

⁹⁹ Moreland, *India at the Death of Akbar*, London, 1920, p. 167; *English Factories* record 1000 to 2000 maunds in flat bottomed boats, see *E.F.*, 1637-41, p. 135.

¹⁰⁰ De Laet, 51. ¹⁰¹ *E.F.*, 1637-41, 135.

¹⁰² *The Embassy of T. Roe to the Court of the Great Mogul, 1615-1619*, ed. W. Foster, Hakluyt Society, London, 1899, Vol. II, p. 476.

¹⁰³ *Ibid.* ¹⁰⁴ De Laet, 51; also see *Tuzuk*, II, pp. 177-78.

¹⁰⁵ *A.A.* II, 190; Pelsaert, I.

¹⁰⁶ *A.N.* III, 153; R. Fitch, Ryley, 100; Jourdain, 162.

¹⁰⁷ *Tārīkh-i Fīroz Shāhi*, by Shams Sirāj 'Afif, Calcutta, 1890, p. 310.

¹⁰⁸ Moreland, *op. cit.*, 167.

¹⁰⁹ Forrest, *Cities of India, Past and Present*, London, 1903, p. 162.

Moreover, direct overland highways running along these cities further facilitated the movement of goods. While the riverine traffic was essential and vital for the routine movement of bulky and heavy goods, the land routes had their own uses. Since the latter course took a shorter time, it was useful in emergencies. Besides the goods thus brought could be conveyed up to the actual place of requirement. It also served to supplement the riverine traffic in essential commodities like foodgrains, salt and sugar, etc. There were miles long caravans of merchants who constantly moved along with their merchandise loaded on oxen bought at one place and sold at another.¹¹⁰ These itinerant merchants were known as *banjārās*.¹¹¹ They travelled with their families, chiefs and priests, and when they were passing the travellers had to wait for them even if the caravan took two to three days to clear out.¹¹² The land routes were naturally more convenient to individual travellers like bankers, brokers, merchants or scholars or state officials.

All the land routes in northern India radiated to and from Agra, rendering it "the heart of his Empire"¹¹³ or the "navel of the whole realm."¹¹⁴ Thus convenient land routes (from the standard of 17th century India) converged on Agra from Tattah, Kabul, Qandhar, Bengal, the Deccan and Surat.¹¹⁵ The provinces near the capital were still better served; as one neared Agra the surrounding habitation,¹¹⁶ shady mulberry-like trees,¹¹⁷ adequate supply of water,¹¹⁸ more comfortable serais at lesser intervals,¹¹⁹ and above all greater degree of security from robbers¹²⁰

¹¹⁰ *Tuzuk*, II, 233; Tavernier, I, 39-42.

¹¹¹ P. Mundy, *The Travels of P. Mundy in Europe and Asia 1608-67*, ed. by R. Temple, Hakluyt Society, London, 1914, Vol. II, pp. 95-6; *Tārīkh i Aqwām i Hind*, I.O.L. Urdu MS. U 26, B 46, ff. 22b-23a.

¹¹² Tavernier, I, 40.

¹¹³ Hawkins, Foster, 100.

¹¹⁴ *Commentary*, 36.

¹¹⁵ Hawkins, Foster, 100.

¹¹⁶ R. Fitch, Ryley, 98; Coryat, Foster, 283-4; De Laet, 55.

¹¹⁷ T. Coryat, Foster, 283-4.

¹¹⁸ For wells sunk at every *kos* from Agra to Ajmer by Akbar, see A.N. III, 156; Badaoni, II, 176; Manrique, II, 184.

¹¹⁹ For serais between Lahore and Agra see De Laet, 55.

¹²⁰ De Laet, 55; N. Withington, Foster, 225; Manucci, I, 69; Manrique, II, 184. For the serais being controlled directly by the state, see *Tabaqāt i Akbarī* by Nizām Uddīn Ahmad, tr. B. De., Calcutta, 1936, Vol. II, 175.

reduced the tedium of journey of medieval times. In most cases more than one route existed so that alternative routes could be used when need arose.

Delhi and Agra too were connected with "level and much frequented road."¹²¹ In fact, it was merely the continuation of the famous Long Walk running up to Lahore.¹²² There were about 69 or 70 turreted marks between the two cities erected by emperor Jahangir, each of them half a league apart.¹²³ The journey took 6 days¹²⁴ and the road was well furnished with water and good caravanserais.¹²⁵

Since this Long Walk extended up to Lahore, both Delhi and Agra were linked with it. Thus Lahore was placed within easy reach of the areas accessible to Agra. Moreover, from Lahore a direct route led to Kabul. A bridge constructed by Emperor Akbar at Attock¹²⁶ removed the problem of crossing the river of the same name, so that the goods could easily flow between Lahore and Kabul during the non-winter season.

Thus, though these cities were geographically rather relegated to the north and north-western part of the Empire, nature and human agency had both effectively contrived to render them central as well as easy of access (or shall we say less difficult to reach) from its remotest corner. And this factor had greatly contributed to their eventual rise to prominence.

These land routes were, however, practicable, enjoying some measure of security, only as long as the empire retained its firm control over the areas concerned. Even before the death of emperor Aurangzeb, the anarchy that was spreading all over the north-western parts directly affected this mode of communication. Robbers, plunderers and rebels all combined together in harassing and molesting the travellers.¹²⁷ Consequently, only riverine traffic could then be availed of with any measure of security.

Hinterland : A sufficiently rich hinterland was a necessary

¹²¹ Manrique, II, 180.

¹²² Thevenot, 85; Coryat, Foster, 283-4; Terry, Foster, 293; De Laet, 55.

¹²³ Thevenot, 85. ¹²⁴ Manrique, II, 180. ¹²⁵ Ibid.

¹²⁶ It was constructed in 1581, *A.N.* III, 523.

¹²⁷ For the insecurity of roads from Muthra to Delhi between the years 1707-15, see W. Irvine's *Later Mughals*, I, 321n.

prerequisite for a thriving urban centre. In fact, the principle holds good more often than not even in the modern world ; but it was especially so during the medieval times when the means of communication were not developed and transportation of goods over long distances was more in the nature of a rarity than the norm. Further, the ordinary urban consumer could not afford to pay the addition in cost occasioned by a long journey, more so if we bear in mind his very low earnings and the relative scarcity of money during the Mughal regime in India.

Delhi province is bordered by river Sutlej on the west ; Ganges and Jamna flow in the north while the latter, in its southern parts, touches its eastern limits.¹²⁸ The terrain is thus the usual alluvial monotony except for a few scattered and broken Arravali outliers in the south-east.¹²⁹ Soils are lighter here due to a great wedge of loam (brown or grey semi-steppe soil), and sand which Rajputana pushes northwards almost to the Sutlej. In the northern parts well irrigation is still important in the light fertile loams ; in the south-west the water table is, however, too low. Nevertheless the sandy loams are remarkably drought resistant and crop failure is less frequent than might be expected considering the low rainfall in the south, c. 12-17 inches.¹³⁰ One or two inches of winter rainfall account for a large proportion of unirrigated wheat in the northern parts like Saharanpur, etc., though the wheat crop is also associated with the high rainfall during the monsoons.¹³¹ Canals were also being used for irrigation purposes.¹³² The region was thus rendered exceptionally rich and sometimes three crops a year were harvested in some parts.¹³³

The Indo-Gangetic *doābah*, commanded in the north by Delhi and for the rest by Agra, is again a vast level plain with an extreme climate—January means range from 55°F. to 64°F., May from 90°F. to 115°F. or more. Sometimes in the north-west the winter gets specially severe, with frosts at night in January and

¹²⁸ A.A. II, 283.

¹²⁹ Spate, O.H.K., *India and Pakistan, A General Regional Geography*, London, 1954, p. 498.

¹³⁰ Op. cit., 487.

¹³¹ Op. cit., 483. For the climate of Delhi also see *Punjab District Gazetteer*, Delhi Division, Vol. V A, pp. 19-20.

¹³² Badaoni, III, 274.

¹³³ A.A. II, 283.

hailstorms in February and March causing serious damage to the *rabi* crops and mainly to sugarcane.¹³⁴ The intensity of monsoon decreases as it descends southwards from the northern *doābah* so that in Agra and Muthra it sinks to under 25 inches.¹³⁵

Lahore commanding the vast hinterland of the Punjab was very rich. The province is an immense plain with some hilly interruptions, mostly on either side of the river Chunab. The region is a great mass of alluvium brought down by the Indus and its tributaries, Jhelam, Chunab, Ravi, Bias and Sutlej.¹³⁶ The soil is in most parts sandy loams, with patches of clay and larger areas of almost pure sand. In places limestone concretions and useless expanses of alkaline efflorescence, *reh* or *kalkar* are found. But over most of the area precipitation is too small for this to have occurred and the almost virgin soils respond generously to irrigation,¹³⁷ which was carried on by means of canals and wells operated through Persian wheels with the aid of oxen.¹³⁸ Inundation canals have been known from time immemorial,¹³⁹ and the *‘Ibratnāmah* names several such canals furnishing us with some of their details.¹⁴⁰ But Spate argues that these are useless when most needed; being dependent on the current river flow, they are liable to run low in dry weather or bad rainfall years.¹⁴¹ We may, however, note here that during our entire period of review no famine afflicting the province is reported, indeed even shortage of foodgrains here due to natural reasons is not mentioned, which fact may be viewed as showing the effectiveness of the irrigation system then in vogue. No doubt the canals were largely supplemented with wells,¹⁴² whose more general diffusion may be attributed to the relative ease with which they may be dug and their greater convenience in irriga-

¹³⁴ Spate, 498. ¹³⁵ Op. cit., 498-9.

¹³⁶ Spate, 462. ¹³⁷ Ibid., 463.

¹³⁸ Manucci, N., *Storia Do Nogor or Mogul India, 1653-1708*, tr. W Irvine, London, 1906, Vol. II, 186; Rennell states that the intent of 48½ common *cos* long *shah nahr* "seems to have been to supply the city of Lahore in the dry season, when all the Indian rivers are from 20 to 30 feet below the level of their banks," *Memoir*, 101.

¹³⁹ Spate, 466.

¹⁴⁰ *‘Ibratnāmah*, by Mufti Khairuddīn Lahori, ed. by Md. Baqar, Lahore, 1961, Vol. I, 30, 31, 31-32, etc.

¹⁴¹ Spate, 466.

¹⁴² Spate, 474.

ting areas lying beyond the reach of canal waters. As regards its winter and hot seasons, the rather extreme climate of Lahore now has 34·7°F. as the lowest minima for January and 115·2°F. as the maximum figure for June.¹⁴³

Thus large tracts adjoining our cities are among the most highly cultivated areas in India.¹⁴⁴ It was equally so in Abul Fazl's time as may be gathered from his accounts in *Ā'in-i-Akbari*.¹⁴⁵ As usual, food crops consisting of wheat, barley, *jowār*, *bājra* and gram predominate in the Delhi-Agra region.¹⁴⁶ Among the valuable crops cotton and sugarcane extend throughout the region,¹⁴⁷ though a greater amount and better variety of the latter seem to have been produced around Lahore and Agra.¹⁴⁸ Lahore appears to have produced quantities of indigo too, as may be judged from Abul Fazl's statistics,¹⁴⁹ the record of the English factors¹⁵⁰ and above all the brisk trade in that commodity by the Central Asian merchants.¹⁵¹ It is possible that its cultivation around Lahore died out owing to the Sikh depredations and consequent disappearance of the main traders of that commodity, the Central Asian merchants, because authors writing in or after the 18th century omit to include it as a product of the Punjab.¹⁵² The cultivation of excellent indigo at Biana and its environs¹⁵³ in the subah of Agra greatly added to its wealth. Lesser varieties of indigo were produced at Koil, Khurja¹⁵⁴ and other places. In the Punjab, too, foodgrains and cotton are even now surplus crops; wheat, cotton, oilseeds, rice,

¹⁴³ Ibid., 464.

¹⁴⁴ Ibid., 499.

¹⁴⁵ *A.A.* II, 316; for Agra also see F. Xavler, *J.A.S.B.*, N.S. no. 1, 1927, XXIII, p. 121.

¹⁴⁶ Manrique, II, 180; Spate, 487.

¹⁴⁷ Spate, 487. ¹⁴⁸ See Chap. VI.

¹⁴⁹ *A.A.* II, 120.

¹⁵⁰ *E.F.*, 1655-67, pp. 5, 270; *E.F.*, 1668-69, pp. 180, *E.F.*, 1618-21, p. 326.

¹⁵¹ Pelsaert, p. 30, n. n. 151. . . . He, however, maintains that it was only the Agra indigo brought here for the convenience of Central Asian merchants. It is thus possible that both the varieties were to be found in the Lahore bazars, the Lahore indigo and the Agra indigo.

¹⁵² For example, *ʿIbratnāmah* of Khairuddin Lahori quoted above.

¹⁵³ W. Finch, Foster, 152; Pelsaert, 13; De Laet, 46.

¹⁵⁴ W. Finch, Foster, 179; Pelsaert, 15; De Laet, 46; *E.F.*, 1646-51, p. 225; *E.F.*, 1655-60, p. 63.

sugar, and fodder fall in consecutive order as related by Spate;¹⁵⁵ our contemporary sources mention only the specific regions where their production either occurred or predominated.¹⁵⁶ The Punjab also produced many kinds of spices, medicinal herbs, flowers and fruits.¹⁵⁷ In fact, even Delhi¹⁵⁸ and Agra¹⁵⁹ which grew some fresh fruits did not equal Lahore either in their excellence or variety.

Furthermore, the provinces of Lahore and Delhi possessed some mineral and metal resources as well. The Lahore mines yielded copper, lead and iron;¹⁶⁰ Delhi could avail itself of the Kumaon mines of lead, iron, copper, opiment, and borax.¹⁶¹ Lahore had in addition extensive rock salts.¹⁶² Among other commodities plentiful supplies of timber,¹⁶³ excellent horses,¹⁶⁴ healthy livestock¹⁶⁵ and ice in the northern mountains¹⁶⁶ were also found. Delhi had sulphur,¹⁶⁷ sal amoniac¹⁶⁸ and lime quarries,¹⁶⁹ while Agra had copper mines at several places¹⁷⁰ and some stone quarries at Fatehpur Sikri.¹⁷¹ Moreover, Agra and Delhi could also profitably use the mineral and metal potentialities of Rajputana, which, though arid from the point of view of agriculture, was rich in this respect. Copper,¹⁷² zinc,¹⁷³ salt,¹⁷⁴ limestone,¹⁷⁵ and marble were some of them.¹⁷⁶

¹⁵⁵ Spate, 465. ¹⁵⁶ *Ibratnāmah*, I, Chapter I.

¹⁵⁷ Ibid.; *A.A.* I, 65; *Haft Aqlīm*, I, 146a; '*Ajā'ib*', 182a; *Khulāsāt*, 22; Thevenot, 85.

¹⁵⁸ *A.A.* II, 283; *Mir'āt-ul-Istelah*, by Anand Ram Mukhlis, Or 1813, 224; Narrative of Prince Jahāndār Shah, in the *Memoirs Relative to the State of India*, of W. Hastings, London, 1786, p. 183.

¹⁵⁹ *A.A.* II, 190; P. Mundy, II, 216; *Mir'āt*, 224; *Hadiqat*, 161; *Haqiqat*, 42a.

¹⁶⁰ *A.A.* II, 317. ¹⁶¹ Ibid., 285.

¹⁶² Ibid., 319; Manucci, II, 424. ¹⁶³ *Ibratnāmah*, I, 43-4.

¹⁶⁴ *A.A.* II, 317; '*Ajāib*', 182a; '*Ibratnāmah*', I, 17.

¹⁶⁵ *Ibratnāmah*, I, 50-1. ¹⁶⁶ *A.A.* I, 56.

¹⁶⁷ *A.A.* II, 285; Badāonī, III, 163.

¹⁶⁸ Pelsaert, 46; De Laet, 49. ¹⁶⁹ *Commentary*, 97.

¹⁷⁰ *A.A.* II, 192, 193, 205; F. Xavier, *J.A.S.B.*, N.S. no. 1, 1927, XXIII, pp. 121-22.

¹⁷¹ *A.A.* I, 223. ¹⁷² *A.A.* II, 273.

¹⁷³ Ibid.; Todd, *Annals and Antiquities of Rajasthān*, London, 1829, Reprint, 1902, p. 477.

¹⁷⁴ Badāonī, II, 46; Manucci, II, 425; *Dastūr-ul-'amal* by B. Anand Ram, Ethe, 2125, f. 62b.

¹⁷⁵ P. Mundy, II, 241. ¹⁷⁶ *A.A.* II, 282.

Besides, it had a good supply of useful livestock and good horses¹⁷⁷ and camels of high quality.¹⁷⁸ Since this province lies in the immediate west of both Delhi and Agra, in spite of the absence of a navigable connecting river, transportation was quite within manageable means. Similarly Lahore too could avail of Rajputāna resources as its south-eastern point touches the desert subah at Bikaner.

A close scrutiny of the *Ā'in-i-Akbārī* and other sources reveals that by contemporary standards these natural potentialities were being systematically tapped, so that the consequent richness of the *doābah* enabled it to sustain the simultaneous growth of two equally great cities, Delhi and Agra, within a distance of less than 60 miles. Lahore drew its resources primarily from the north, west and south, that is from the regions beyond the direct reach of the twin *doābah* cities flourishing in its east.

Water Supply : Most of our sources bear out that these cities were well supplied with water,¹⁷⁹ enough not only for human needs but also for the verdure, fountains or for building purposes—features which characterised these cities almost throughout our period. Proximity to a flowing river assured the supply of water, all that was needed was to carry it to the place of requirement. Keene visiting Agra in c. 1899, found that on the roof of Jahāngīrī *maḥal* there were a number of cisterns into which the water of Jamna was raised by a system of lifts, traces of which still remained. On the other side of these cisterns were the mouths of several copper pipes by which means the water was distributed to the various parts of the palace whose respective names were engraved on medallions surmounting each pipe.¹⁸⁰ It is possible that the same kind of arrangements was made for other palaces at Agra, and at Lahore and Delhi. It is also likely that some of the wealthy grandees of the state such as I'tamād-ul-daulah or Āsaf Khan, besides the princes of the royal blood, made use of the same system for supplying water in their own respective establishments, especially since we

¹⁷⁷ A.A. I, 133; Todd, 476. ¹⁷⁸ A.A. I, 151.

¹⁷⁹ For Delhi and Lahore, see *Khulāsat*, 3; for Delhi, see C. C. Brahman, 54a, 55a; *Bahār i Sukhan*, 131a; *Haqiqat*, 37b.

¹⁸⁰ Keene, *A Handbook for Visitors, Agra*, Calcutta, 1899, p. 15.

know that their mansions and palaces lined the bank of Jamna at Agra.

Evidently the rest of the inhabitants of these cities had recourse to less expensive and less elaborate means of water supply. Usually these comprised canals, tanks, reservoirs, lakes and wells. No canal is mentioned at Agra. At Lahore, Ali Mardān Khan had cut a canal five *kos* in length at the imperial order.¹⁸² It had an abundant supply of water.¹⁸³ Much earlier Sultan Firoz Shah had constructed a ninety-mile-long canal from the river Sutlej,¹⁸⁴ which was still full of abundant water in 1795, when Franklin visited it.¹⁸⁵ It is, therefore, possible that the need for this additional canal arose when the river Ravi was withdrawing from Lahore, resulting in a dearth of water in the city. The canal of Delhi, too, had originally been cut by Sultan Firoz Shah.¹⁸⁶ During the reign of emperor Akbar it was repaired by Shahāb Khan and named after him. It ran from Khizrābād to Safidūn.¹⁸⁷ Again, in the reign of emperor Shāh Jahān it was renewed by Makramat Khan and named Nahr i Faiz.¹⁸⁸ The canal flowed through the main bazar of Delhi and presented a picturesque sight.¹⁸⁹ As its water could be used by all and sundry, it benefited the public in general. It was also being used for supplying and storing water in tanks and reservoirs,¹⁹⁰ sometimes large enough for boating by *nawwāra*.¹⁹¹

The construction of wells, tanks, reservoirs and artificial lakes was an ancient social institution in India; the rulers as well as their subjects fully co-operated in such beneficial projects.¹⁹² These were regarded as humanitarian deeds and were undertaken by all those who could afford them.¹⁹³ Muslim rulers and men of means were no exception to the general tradition,¹⁹⁴ if any-

¹⁸¹ W. Finch, Foster, 182; Pelsaert, 2; De Lact, 37.

¹⁸² *Hadiqat*, 147; also see *Memoir* 101.

¹⁸³ *Ibid.* ¹⁸⁴ P. Saran, 417.

¹⁸⁵ Franklin, *Asiatic Researches*, IV, p. 420, quoted by P. Saran, p. 417.

¹⁸⁶ *Shāhjahān nāmāh*, III, 29.

¹⁸⁷ *A.A.* I, 353; Badaoni, III, 274.

¹⁸⁸ *A.A.* I, 353; *Bahār i Sukhan*, 131a; *Shāhjahān nāmāh*, III, 29.

¹⁸⁹ *Āsār*, II, 52. ¹⁹⁰ *Āsār*, III, 89. ¹⁹¹ *Ibid.*

¹⁹² P. Saran, 411. ¹⁹³ *Ibid.*, 411-18.

¹⁹⁴ In fact, the imperial ordinances issued from time to time to executive functionaries strongly advised them to undertake the works of

thing, they spent more lavishly on them as frugality was not one of their virtues. In India water drawn out of a well or obtained from any of the stored places could, under ordinary circumstances, be had free of cost.¹⁹⁵ In practice it implied that the general public could easily avail themselves of these sources of water supply which were scattered throughout our cities. In the absence of modern running taps their usefulness cannot be over-estimated.

Wells were of two kinds, ordinary wells and step wells. The latter were built of masonry and enclosed larger areas with steps reaching the bottom part. These were known as *bāoli*.¹⁹⁶ The *Khāri bāoli* of Delhi built in 1545 was still in use till the middle of the 19th century.¹⁹⁷ Perhaps it was, amongst other factors, the facility of water supply that drew a large number of inhabitants into the area developing it into a regular *mohalla*.¹⁹⁸ Step wells were to be found at Lahore too.¹⁹⁹ The number of ordinary wells in both the cities was perhaps beyond enumeration. At Agra Manik Chand records forty-three wells of masonry.²⁰⁰

Reservoirs and tanks abounded in each of the capital cities and some important ones are mentioned in the sources by their names or by the names of their builders; for example, at Delhi, the *Hauz i Khās*, *Hauz* of Maḥaldār Khan (built in 1725), two large tanks in the Darush Shafa and the *Dārulbaqa*,²⁰¹ a *hauz* in the mosque of *Fakharul Masājid* (built in 1728), and Shah Mardān,²⁰² and *Hauz i Shamsi*.²⁰³ At Agra, there were four large tanks, *Hauz i Kalān*,²⁰⁴ one in the mausoleum of Qandhāri Begam,²⁰⁵ one in Dehra Gardens²⁰⁶ and lastly, one in the tomb of E'tebār Khan.²⁰⁷ Among those of Lahore,²⁰⁸ only the tank of Kamboh is mentioned by name.²¹⁰

public welfare such as making of reservoirs, wells, water courses, gardens, etc. and to repair what had fallen into ruins, see *A.A.* II, 39; *Tuzuk*, I, 8.

¹⁹⁵ *Fatāwā i Ālamgirī*, tr. and ed. by N. B. Baillie, London, 1850, p. 173.

¹⁹⁶ For a detailed description of a *bāoli*, see Mundy, II, 64.

¹⁹⁷ *Āsār*, III, 5. Turkiyān *bāoli*, and Serai *bāoli* too are mentioned.

¹⁹⁸ *Ibid.* ¹⁹⁹ *Haqiqat*, 60b. ²⁰⁰ *Ahwāl*, 36-59.

²⁰¹ *Āsār*, III, 89. ²⁰² *Ibid.*, 69. ²⁰³ *Ibid.*, 88 and 89.

²⁰⁴ *Ibid.*, 75. ²⁰⁵ *Ahwāl*, 50. ²⁰⁶ *Ahwāl*, 53.

²⁰⁷ *Ibid.*, 56-7. ²⁰⁸ *Ibid.*, 54. ²⁰⁹ *Hadiqat*, 147. ²¹⁰ *Md. Bāqar* 309.

Water carriers were engaged.²¹¹ It is perhaps reasonable to assume that while the aristocracy could employ water carriers on the basis of a monthly salary, men of lesser means employed them on a daily basis for a certain period and for specific jobs in hand; for example, for construction work or during encampment. The ordinary house-holder, however, is more likely to have paid him only according to the number of bags supplied, as is enunciated in the *Fatāwā i 'Ālamgīrī*,²¹² and still obtains in the interior of north Indian small towns among the higher classes of common people. When engaged for construction work, according to the *Ā'in-i-Akbārī*, they were paid two to three dams per diem,²¹³ or Rupee one and eight annas to Rupees two and four annas per month. Later on, during the reign of emperor Jahangir, the minimum wages allowed to the men attached to the imperial establishment were Rupees three per month²¹⁴ (of thirty days and not of forty days²¹⁵ as suggested by some). Since the waterman figures as an imperial employee,²¹⁶ he would be earning at least Rupees three a month, reflecting a considerable rise since the days of Abul Fazal.²¹⁷ In the absence of information about the nature of the movement of foodgrain prices, it is difficult to say whether this rise in minimum wages was meant to compensate for any rise in prices or constituted a real increase in wages. In 1793, it had gone still higher up as De Boigne, a general in Sindhia's troop, was paying his water carriers at the rate of Rupees four per head, while the major (of carriers ?) received Rupees five.²¹⁸

Emperor Akbar had regulated that the water required for his kitchen and cooking purpose should be either brought from the Jamna or the Chunab, or be rain water. His drinking water was always Ganges water which had to be carried to the imperial establishment (wherever it might happen to be) in

²¹¹ A.A. I, 60. ²¹² *Fatāwā*, 175. ²¹³ A.A. I, 236.

²¹⁴ Hawkins, Foster, 99.

²¹⁵ Brij Narain, *Indian Economic Life Past and Present*, Lahore, 1929, p. 12.

²¹⁶ Hawkins, Foster, 99. ²¹⁷ Brij Narain, 16.

²¹⁸ Sarkar, *English Records of Marhatta History*, Poona Residency Correspondence, Vol. I, *Mahādāji Sindhia and North Indian Affairs 1785-1794*, Bombay, 1936, pp. 393, 394 and 395.

sealed jars²¹⁹ (leather bags). Similarly, emperor Shah Jahan preferred his drinking water from the river Jamna.²²⁰

Cooling of water is a necessity in hot countries; ice and saltpetre were the usual agents employed for the purpose. Ice was brought by couriers from the northern mountains to Lahore²²¹ and was distributed thence. The cost of its carriage was, therefore, considerable at Agra and Delhi—in seasons it was on an average 8 7/8 dam per seer²²² or about 4.2 scers per Rupee. Thus only the aristocracy could afford its use at Agra or Delhi.²²³ In the case of saltpetre, 2½ seers worth 3 1/3 dams (3/4 to 1 man per rupee²²⁴), was required for cooling one scer of water.²²⁵ Since this method too is obviously quite expensive, say for a trooper earning about Rupees 25 a month,²²⁶ the most widely used mode of cooling must have been, as it is now, by storing water in earthen pitchers. Syrup-sherbet, a very popular drink²²⁷ during the hot season for its cooling effects especially required ice-cold water.

Thus by means of rivers, canals, reservoirs, tanks and wells these capital cities were adequately supplied with water, as is borne out by the categorical statement to this effect by the Persian sources²²⁸ and also by negative evidence of the travellers and visitors.

Provisioning: For the entire course of the period under review, hardly any substantial evidence relating to the provisioning of these cities exists. Therefore, the best that could be done was to piece together the stray and fragmentary allusions whenever they occurred in the sources. The mere continuance of these

²¹⁹ A.A. I, 55.

²²⁰ Hamiduddin Khan Nimchah, *Ahkām i 'Ālamgīrī*, tr. Sarkar, ed. Calcutta, 1912, p. 8.

²²¹ A.A. I, 56; *Mir'ātul Istelāh* by Ānand Rām Mukhlis, B. M. Or., 1813, p. 132; *Hadiqat*, 147.

²²² A.A. I, 56; see *Fatāwā*, p. 172 for some of the conditions regarding the sale of ice.

²²³ A.A. I, 56; Badāonī III, 203; *Haft Aqlīm*, 146a.

²²⁴ A.A. I, 56.

²²⁵ Ibid.

²²⁶ Bernier, I, 216-17.

²²⁷ *Ājāib*, 181b.

²²⁸ For Lahore, *Khulāsāt*, 3. For Delhi, C.C. *Brahman*, 54a, 55a; *Bahār i Sukhan*, 131a; *Khulāsāt*, 3; *Haqiqat*, 37b. For Agra there is no direct evidence to this effect, but the foregoing account conclusively proves it.

cities would justify the inference that some effective system for their regular provisioning had already been evolved by 1556 and remained operative till 1803. Neither of these cities is said to have suffered from failure of food supplies for the local urban inhabitants in normal years.

The interest shown in this direction by emperor Akbar is noteworthy. The regulation of prices of all articles of food with the help of Mīr i Bakāwal and Abul Fazl,²²⁹ as well as the prevalence of the system under the Sultans (seen elsewhere), would suggest that he kept a strict watch over their demand and supply,²³⁰ at any rate, at Agra. It is possible that similar arrangements were made at Delhi and Lahore, especially at the latter place while the emperor was there in residence. It is more than likely that his successors Jahangir²³¹ and Shah Jahan maintained the system, because in the next reign an officer was appointed in charge of the grain supply at Delhi; he also kept the emperor informed of the current prices of all commodities sold in the market.²³²

The *Ā'in i Akbari* furnishes us with considerable details regarding the provisioning of Agra. Varieties of rice, we learn, were obtained from Bahraich, Gwalior, Rajori and Nimlah; *ghī* came from Hisar Firoza, poultry and some vegetables from Kashmir. Poultry and cattle were kept and fattened by the royal cooks and the slaughter-house lay outside the city near the bank of the river.²³³ Though these goods were being obtained for the royal table, the fact that their prices are included in the appended price list of *Ā'in i Akbari*²³⁴ indicates that these (except *ghī* from Hisar Firoza) were meant for the general consumer as well.

This list also reveals that Agra market received provisions from other places as a matter of routine. Thus saffron, grown only in Kashmir, has been quoted at Rupees ten per seer,²³⁵

²²⁹ A.A. I, 58. ²³⁰ P. Saran, 423-4.

²³¹ Jahangir in his *Tuzuk* observed that the prices of commodities go up when his Court is present at any particular place; therefore, we may assume the trend must have been the same under Akbar as well. Akbar however, with his meticulous care for the details must have seen to keeping them in check.

²³² Manucci, II, 421. ²³³ A.A. I, 57-8.

²³⁴ Ibid., 62-4. ²³⁵ Ibid., 64.

though by Pelsaert's time it had gone up to Rupees twenty to twenty four per seer.²³⁶ Pepper, cloves and other spices were obtained from the ports, as may be gathered from amongst others, the Dutch East India factors.²³⁷ Fresh fruits, apart from the local supply, were brought from Kashmir, Kabul, Badakhshan and the Punjab in accordance with the season.²³⁸ In most of these cases, the conveyance was effected by means of male porters,²³⁹ who were paid at the rate of Rupees two per maund. Thus, while eight seers of grapes cost one *dām* in Kashmir, its price at Agra went up to 108 *dāms* per maund²⁴⁰ (or a little less than three *dāms* - 2.7 - per seer). The betel leaf, though produced in the adjoining districts of Agra,²⁴¹ was also being brought from Malwa,²⁴² presumably for the sake of variety.

The provisioning of Agra was so regular that the city seldom experienced shortage of food supplies²⁴³ and often had them in plenty.²⁴⁴ Even during the years of the Gujarat famine, 1631-32, the local English factors found Agra well provided²⁴⁵ with supplies. In fact, the city usually had "huge amounts of food-stuffs and dainties of all sorts" in its numerous bazars. Entire streets could be seen occupied by skilled sweetmeat makers offering delicious preparations of all kinds.²⁴⁶

The main source for the provisions of this city was its rich fertile countryside,²⁴⁷ which could feed not only its human population of five hundred thousand on wheat, rice and butter, but also its over twelve thousand horses on chick peas in addition to three to four thousand elephants.²⁴⁸ The staple diet of the

²³⁶ Pelsaert, 35, also see p. 36.

²³⁷ *Dutch Records at the Hague*, collected by C. Danvers, First series, I.O.L. 6.1., vol. X., 1634-37, p. CCXX, 6.

²³⁸ *A.A.* I, 64-5; also see *Haqiqat*, 42a.

²³⁹ *A.A.* I, 65. ²⁴⁰ *Ibid*.

²⁴¹ *A.A.* II, 190; *Haqiqat*, 42a; *Haqiqat*, 61.

²⁴² R. Singh, *Malwa in Transition, 1698-1765*, Bombay, 1936, p. 8, quoting from Nawāzish Khan's Letter Book, 2b-3a.

²⁴³ *Commentary*, 36.

²⁴⁴ F. Xavier, *J.A.S.B.*, N. S. No. 1, 1927, Vol. XXIII, p. 121, P. Mundy II, 214-5.

²⁴⁵ *E.F.*, 1630-33, 178-9. ²⁴⁶ Manrique, II, 156.

²⁴⁷ F. Xavier, *J.A.S.B.*, N. S. No. 1, Vol. XXIII, 1927, p. 121.

²⁴⁸ *Ibid*.

common people of Agra is generally said to have been wheat or rice and butter.²⁴⁹ The balance of requirement was met by imports from the eastern region consisting of all kinds of grains, butter and other provisions.²⁵⁰ Indeed, by Pelsaert's time these consignments had assumed such a significance (maybe owing to the rise in population) that he considered them indispensable for the very life of Agra²⁵¹ and the King's army.²⁵²

The silence of other authorities in this respect may be taken as negative evidence, because, had any scarcity or even tightening of the supplies occurred at the imperial capital, it certainly would have been noticed by the multitude of foreigners residing there at the time. Indeed, even for the period after 1638, when Agra ceased to be the capital, we have no such adverse reports regarding the provision of the supplies.

There is no reference to the provisioning of Delhi until it was resumed as capital in 1638, after which there are merely vague allusions to the general abundance of foodstuffs in the city.²⁵³ Bernier, going a little farther, says that for each shop of rich silken stuffs there were twenty five for groceries²⁵⁴ and that the bakers and butchers abounded and could be found in every part of the city.²⁵⁵ The mention of *Nawāb Fatehpūrī* as the principal grain market,²⁵⁶ and *sabzi mandi* as the chief centre for vegetables,²⁵⁷ is, however, significant, though the source of supply in either case remains obscure. From Sarkar's description it appears that it was mainly the *doābah* which used to feed the capital, a circumstance which gave rise to Patpargunj, Ghaziabad and Shahadrah as rich emporia of trade.²⁵⁸

Just as the emperor maintained his own farms for vegetables and also for cattle and poultry breeding, the *umerah* would perhaps do the same. The employment of a beef butcher, Khan Mohammad by Koka Khan²⁵⁹ (in c. 1723) would again suggest that the nobles maintained their own stock of cattle. But the

²⁴⁹ Ibid, Pelsaert, 61. ²⁵⁰ Pelsaert, 4.

²⁵¹ Ibid, 5, 9. ²⁵² Ibid, 9.

²⁵³ C. C. Brahman, 52a; *Khulāsāt*, 5; *Hadiqat*, 146a.

²⁵⁴ Bernier, I, 248. ²⁵⁵ Ibid., 250. ²⁵⁶ G. Md. Khan, 38a.

²⁵⁷ Ibid., 41a; *Akhbārāt, Newsletters of the Mughal Court, Reign of Ahmad Shah, 1751-52*, Bombay, 1949, p. 76.

²⁵⁸ Sarkar, *Fall of the Mughal Empire*, III, 439.

²⁵⁹ Irvine, *Later Mughals*, II, 133.

poultry and cattle for slaughter for the general consumer would, no doubt, be furnished by the areas contiguous to Delhi, especially the south-western parts which, as seen above, were rich in livestock. We have at least one piece of evidence that Hodāl lying forty seven *kos* west of Agra²⁶⁰ had dispatched 1,300 carts loaded with leather bottles of *ghī* for Delhi, which, incidentally, were looted on the way.²⁶¹

Bernier was quite impressed with the mode of display of fruits in the fruit market.²⁶² The imported fruits, despite their plentiful supply, were quite expensive : for instance, the price of a single melon could be as high as two and a half crowns. Only the *umerah*, such as Bernier's employer, could afford twenty crowns daily on these for breakfast alone.²⁶³ Indeed, even the Lahore fruits were esteemed so highly at Delhi as to constitute suitable presentation to the Emperor.²⁶⁴ The local mango supply was supplemented by imports from Goa, Golconda and Bengal on account of their superior quality.²⁶⁵ Emperor Aurangzeb used to get his mangoes regularly from Allahabad, Malwa and Khandesh, pomegranates from Jodhpur and Thatta and other fruits from Gujarat.²⁶⁶

Lahore: Like Agra and Delhi, Lahore too used to be well furnished with provisions of all kinds. The bazars had abundant stocks of grain and other foodstuffs. Apart from numerous regular shops for cooked food, there were, as Manrique found, temporary stalls in the outskirts of the city where all varieties of vegetarian and non-vegetarian dishes were sold. Even bread and rice could be had in several grades. Their low price was also a matter of surprise to the traveller, "for any man could fare fully and sumptuously all day for two silver rials."²⁶⁷ The Local sugar too was of several varieties. In March 1638, the white grained sugar (like that of Agra) was selling at Rupces seven per *pacca* maund ; the other grade was at Rupees six or five and

²⁶⁰ Forty seven *kos* from Agra towards Lahore, W. Finch, Foster, 155 ; A.A. II, 206.

²⁶¹ Irvine, op. cit., I, 325. ²⁶² Bernier, I, 249.

²⁶³ Ibid. ²⁶⁴ *Akhbārāt*, 1751-52, 100.

²⁶⁵ Bernier, I, 249 ; *Chamanistān*, Ananda Rām Mukhlis, Newal Kishore Press, 1877, p. 51.

²⁶⁶ Sarkar, *Mughal Administration*, Patna, 1920, p. 64.

²⁶⁷ Manrique, II, 186-88.

twelve annas, while sugarcandy was priced at Rupees eleven (per *pacca* maund).²⁶⁸

As elsewhere, Lahore too presumably obtained its foodgrains from the surrounding regions. Our only contemporary source, the *‘Ilm i Navīsīndīgī*, while mentioning the origin of other grains, omits to name that of the *moong* and *moth*²⁶⁹ imported at Shahadrah *mandi* in c. 1750, by Yār Mohammad and Gur Sahāi respectively. Of their imports, the *moth* weighed five hundred maunds and was priced at Rupee one a maund, and the *moong* was worth Rupees one hundred and eighty nine. These were checked and charged for customs at the *mandi*, yielding Rupees twelve and eight annas and Rupees nine and eight annas respectively to the state.²⁷⁰ Perhaps the arrival of foodgrains from the adjoining areas was a routine matter and its origin was not recorded unless the goods had travelled some distance.

From the same source we also learn that Lahore used to import foodgrains from as far east as Moradabad and Sirhind. Thus, in the month of *Sha‘bān*, 1,000 maunds of wheat from the former and 250 maunds of *Sukhdās* rice from the latter place were received at the Shahadrah *Mandi*. The imperial staff at the *Mandi* fixed their prices at thirty five seers and twenty five seers per rupee respectively.²⁷¹ Both Muslim and Hindu merchants carried on the business; while the wheat dealer in this instance was a Mohammad Murād, the rice dealer was a Hindu, Rām Chand.²⁷² Unfortunately, we do not have any other example of such transactions. The regular staff, office and daily accounts maintained by the state at the *Mandi*²⁷³ would, however, show beyond any doubt, that the inflow of foodgrains was a normal feature at Lahore.

Commerce : Besides the provisioning aspect, commercial intercourse of a more general and varied character constituted an integral part of the life of these cities. Their locations on the main highways and their command over a rich hinterland were both calculated to facilitate and promote this intercourse.

²⁶⁸ E.F., 1637-41, 134; also see Irfan Habib, *The Agrarian System of Mughal India*, London, 1963, p. 85, and n.n. 14.

²⁶⁹ For their production in the subah of Lahore, see A.A. II, 88.

²⁷⁰ *Ilm i Navīsīndīgī*, 90b. ²⁷¹ Ibid.

²⁷² *Ilm i Navīsīndīgī*, 90b.

²⁷³ Ibid., 90a, 90b, 91a, 91b, 92a, 92b.

On this, however, we are beset with an extreme paucity of material. It would perhaps be too much to hope for figures : even the facts recorded are few and far apart. The Persian authorities were, of course, not interested in this aspect. Only the European sources yield us some bits of information when and where the European observers happened to be present. Travel accounts are indeed very useful and their value is further enhanced by the fact that they cover almost our entire period from 1578 till 1783-84. Of the European sources, the most comprehensive are the Records of the trading companies, in particular the English and the Dutch companies. The Dutch Records being in Dutch were not available to us : the translated *Hague Transcripts* in the India Office Library contain very little that could be useful to us. In short, our main sources comprise the Travellers' accounts and the Records of the English East India Company ; parts and periods not touched by this company remain more or less obscure. Again, after 1770 we get some facts but more figures of the imports in these cities through Patna from the unprinted original records maintained by the English East India Company and preserved in the India Office Library.

The trade of Delhi goes unnoticed up to 1638 and the few isolated statements relating to the subsequent period do not amount to much. Manucci recounts a long list of a variety of cotton goods, silk pieces, embroidered material, plain and flowered carpets, excellent bows and arrows, saddles, swords, coarse woollen stuffs, shoes, boats, rock salt and "other things", as being exported to Delhi from Lahore, as in Delhi "everything finds a sale and is consumed."²⁷⁴ We may regard this testimony as reflecting the general pattern of traffic : all the provinces sending their chief or surplus products including imported goods to Delhi where a ready market awaited them. The fact that Delhi did stock them in abundance is borne out by many authorities.²⁷⁵ In 1680s, after meeting the normal daily requirements, there were still enough stocks to equip one thousand soldiers in a single day.²⁷⁶ A century later, the requisites of a whole kingdom,

²⁷⁴ Manucci, II, 424.

²⁷⁵ *Ajā'ib*, 181b ; C. C. Brahman, 53a-b ; 57a-b ; *Shāhjahān Nāmah*, III, 46 ; *Khulāsat*, 5-6 ; *Bahjat*, 68 ; *Hadiqat*, 44-5.

²⁷⁶ *Khulāsat*, 6 ; *Hadiqat*, 44-5.

declares one authority, could be purchased in Delhi within a week.²⁷⁷

After 1770, its imports from the eastern regions through Patna consisted mainly of silken goods, raw silk, some cotton fabrics and chinaware. For example, in 1777 it imported from Murshidabad 6092 pieces of silken goods—chiefly *mashru*,²⁷⁸ 77 maunds, 26 seers of raw silk and 836 pieces of cotton fabrics, along with some minor articles.²⁷⁹ It is obvious that even during its declining days Delhi was undoubtedly importing many other articles besides these, such as spices, metal (especially copper) and other cotton goods. In view of their omission in the list, we may infer that the commercial contacts of Delhi with its non-eastern regions were still active. Furthermore, from the limited quantities of the goods in the above list, including such incidental consignments as eleven corges of chinaware in 1773,²⁸⁰ we may deduce that they were intended only for local consumption.

Evidently Delhi was required to make payments for the incoming goods either in cash or kind, or both. In fact, the ability to pay in cash at a particular time alone would not constitute a sufficiently strong basis for a sustained economy, for this source is liable to exhaust itself pretty speedily. The city had to have some solid productive means by which to ensure the constant flowing in of the money itself. Or, in other words, without the ability to export some of its own surplus products the city could not, for centuries, go on consistently thriving on imports alone.

Delhi offered a variety of merchandise that attracted merchants from far and near. "Indigo and cotton cloths dyed in various colours and stuffs called *chhint*" were especially sought after.²⁸¹ The Central Asian merchants invested largely in the local printed cotton goods.²⁸² Unfortunately our evidence does not go beyond what has been said above: the rest is largely a matter of speculation.

²⁷⁷ *Hadiqat*, 44-45.

²⁷⁸ A silken stuff, usually striped.

²⁷⁹ *B. B. of Revenue and Misc. Proceedings*, Range 98, Vol. 22.

²⁸⁰ *Ibid.*, Range 98, Vol. 15. ²⁸¹ Manrique, II, 180.

²⁸² Even as late as 1793, the once-a-year visiting caravans from the north brought Kabul Kashmir horses, shawls and fruits; the last two commodities could be procured at Delhi at reasonable rates. W. Franklin, *Asiatic Researches*, Vol. IV, London, 1807, p. 424.

But this inadequacy of details is to a certain extent made up by the evidence of the existence of wealthy and substantial *banyas* in the city.²⁸³ They, in fact, came gradually to form a sizable proportion of the general population,²⁸⁴ some of whom were mainly attracted by the trade in printed cotton stuffs and indigo.²⁸⁵ The Central Asian merchants arriving, presumably, via Lahore, were chiefly interested in these commodities. It is asserted that at least twenty foreign countries were represented in the vast number of merchants residing in the city, apart from those of all parts of India and Kashmir. All of them lived harmoniously, spoke the common Hindustani language and drove a lucrative trade.²⁸⁶ Naturally there were grades amongst them, ranging from wealthy bankers and jewellers to petty shop-keepers,²⁸⁷ and perhaps hawkers.

The wealthy merchants lived away from the place of their business,²⁸⁸ near the gate of the palace.²⁸⁹ The lesser ones used the upper storey of their shops as dwellings which were quite impressive from outside and airy from inside. The front part of their ground floor was reserved for the shop while the back portion was used for storing the wares for the night.²⁹⁰ Usually these front part shops were built as arcades - *chhatta* in the vernacular—and could also be employed as *kārkhānas*.²⁹¹ Some of these arcades or *chhattas* became famous in the history of Delhi, such as *Chhatta Nigambodhi*²⁹² or that of Jan Nisar Khan.²⁹³ These *chhattas* now connoted not merely a single arcade, but as the author tells us, the whole streets had been named after them²⁹⁴ signifying their importance in the locality. In the former arcade there were thatched shops till 1748,²⁹⁵ along with several *ghāts* built in red stone by the Hindus in 1738²⁹⁶ This evidence points to the future expansion of the earlier arcade into a regular *mohalla* of the city.

²⁸³ *Commentary*, 97.

²⁸⁴ C. C. *Brahman*, 52b; Manrique, II, 180; Bernier, I, 246; Tavernier, I, 97.

²⁸⁵ Manrique, II, 180. ²⁸⁶ *Khulāsat*, 2-3.

²⁸⁷ Bernier, I, 245. ²⁸⁸ *Ibid.*

²⁸⁹ Tavernier, I, 97. ²⁹⁰ Bernier, I, 245. ²⁹¹ *Ibid.*

²⁹² G. Md. Khan, 38b. ²⁹³ *Ibid.*, 39b. ²⁹⁴ *Ibid.*

²⁹⁵ Sarkar, *Fall of the Mughal Empire*, I, p. 353.

²⁹⁶ *Āsār*, III, 90.

Lahore: Lahore acted as an entrepôt for the Central Asian merchants who collected here from all over Asia, flooding the city with their wares.²⁹⁷ Emperor Jahangir, in order to further encourage this intercourse, had "abolished also all the transit dues (*sair-i-jihat*) in Kabul, which is one of the noted towns on the road to Hindustan. These had brought in one krór and twenty three lakhs of dams"²⁹⁸ or Rupces 307,500/-. The emperor had been remitting dues all round²⁹⁹ and the actual proceeds from this levy certainly appears negligible when viewed in the light of gross imperial income; therefore, ostensibly there is nothing highly significant in the measure. Nevertheless there do appear two very strong motives that might have urged the emperor to remit these dues. With the establishment of the Portuguese and other European powers coming in over the high seas,³⁰⁰ the movement by the Persian Gulf of the Central Asian merchants had been impaired. Thus the easy access to trading points through a north-western land route must have been of enormous value to them. In fact, the emperor himself states that this measure greatly benefited the people of Iran and Turan,³⁰¹ and it was only merchants from these places—the Persians, Armenians³⁰² and Mughals³⁰³—who were directly engaged in this traffic. The advantage accruing to the Indian trader by this measure is obvious; for example, instead of having to send his merchandise to distant ports en route to their final destination abroad through a host of intermediaries and European carriers, he was now able to transact business straightaway on the spot.

Thus, undoubtedly, it would lead to a boom in the Lahore and Kabul traffic. Qandahar, too, leading to the Central Asian markets from Multan was similarly treated by the emperor and included in the list of remitted transit dues.³⁰⁴ Both these places,

²⁹⁷ *A.A.* II, 317; *Haft Iqlim*, I, 146a; *Commentary*, 159; '*Ajā'ib*, 182a.

²⁹⁸ *Tuzuk*, I, 47.

²⁹⁹ *Ibid.*, p. 7.

³⁰⁰ See Moreland, *India at the Death of Akbar*, Chap. VI.

³⁰¹ *Tuzuk*, I, 47.

³⁰² Roe, *Embassy*, II, 440; *Dutch Records, 1629-34*, Vol. IX, p. cccxviii, 7.

³⁰³ *Dutch Records, 1629-34*, Vol. IX, p. cccxvii, 7; Roe, *Embassy*, I, 172.

³⁰⁴ *Tuzuk*, I, 47.

Kabul and Qandahar, it may be noted, were centres of foreign trade. No parallel measures, however, were taken in other sectors of foreign trade, such as the sea ports. Evidently then, the Central Asian trade embodied some additional value to the empire than a mere ordinary trade of minor significance.

The only plausible explanation of this situation seems to be that these traders, apart from their other merchandise brought in considerable quantities of bullion—an article in which the empire was positively deficient unless earned by the sale of its produce or imports. Unfortunately we do not have enough data to verify our hypothesis. In view of the usual receipt of Irani and Turani silver coins *lari* and *shahi* at the Imperial mint,³⁰⁵ we may, however, infer that their import was general and presumably long-established. We also have definite evidence that ports such as those of Gujarat were importing gold and silver from several countries,³⁰⁶ part of which was being despatched to the up-countries.³⁰⁷ Therefore, we may conclude that up to the end of the 16th century the import of bullion via Kabul could have been only a part of the aggregate brought in in the empire. It is possible that by the beginning of the next century the major or substantial part of this trade was diverted to the north-western overland routes, because after some decades when the Europeans ceased to bring in bullion in any considerable quantity,³⁰⁸ no scarcity of silver is reported in the empire. A later writer attests to its being the usual course with the Central Asian merchants to carry treasure to Patna loaded on long rows of beasts of burden. Indeed, according to the same authority, its volume was large enough to make good the loss of the province from the flowing out of imperial revenue demands and other incidental contingencies. When this source of replenishing the treasure dried up, the scarcity of silver by about the middle of the 18th century became extremely acute.³⁰⁹

Tracing this source back to Kabul and Lahore, we may, therefore, deduce that the Central Asian caravans arriving at Lahore

³⁰⁵ A.A. I, 23, 38.

³⁰⁶ For silver *larin* from Persia see Moreland, op. cit., 209; for gold from Mukha, E.F., 1618-21, 190; also see Moreland, op. cit., pp. 197, 208, 209, 283-6.

³⁰⁷ C. Frederick, Hakl. Voyages, III, p. 206.

³⁰⁸ See Chapter III.

³⁰⁹ W. Bolts, *Consideration on Indian Affairs*, London, 1772, p. 200.

brought in large quantities of treasure.³¹⁰ When by about the middle of the eighteenth century the Kabul route became too hazardous, the inflow of treasure ceased. This circumstance would also explain why the Lahore-Kabul trade was so important to all the parties concerned, to the city of Lahore, to the Central Asian merchants, to the emperor himself,³¹¹ and to the Indian merchants who refused to be diverted to the sea route via river Sindh.³¹² Almost half, if not more, of Lahore perished with the blockade of this trade.

The approximate volume of this traffic may be calculated with the help of Jahangir's figures and by assuming the rate of duty levied at the usual two and a half per cent.³¹³ Calculating back from the revenue yield of 1,23,00,000 *dāms* or Rupees 30,75,000, we find that goods worth Rupees 1,23,00,000 were passing in and out of Kabul and Qandahar. If the incoming goods may roughly be valued at fifty per cent of the total volume, then we get them worth Rupees 61,50,000/-. The merchandise of these caravans is said to have consisted mainly of fruits, both fresh and dried,³¹⁴ and high-bred horses.³¹⁵ It is hard to imagine the import of just these three commodities worth at least about Rupees sixty two lakhs annually, especially when horses were being bred at several places in the empire,³¹⁶ apart from those that were being brought by sea.³¹⁷ Further, fresh fruits, being perishable, could be imported in limited quantities only, while the low-priced³¹⁸ and

³¹⁰ For import of silver from Persia by sea, Moreland, op.cit., 209; for gold from Mukha, see *E.F.* 1618-21, 190.

³¹¹ For Aurangzeb's effort to keep the Khaibar Pass open for trade, see Sarkar's *Aurangzeb*, III, 279.

³¹² Roc, *Embassy*, II, 476.

³¹³ *A.A.* I, 281; Moreland, op. cit., 46.

³¹⁴ For fresh fruits see *A.A.* I, 68-0; for dried fruits, *A.A.* I, 65-6; for both fresh and dried fruits see Bernier, I, 203-4; Manucci, I, 323.

³¹⁵ *Bābarnāmah*, I, 6; Jenkinson, Hakluyts Voyages, I, 458; Jauhar Āftābchī, *Tazkiratul Wāqīāt*, Karachi, 1955, 117; *Tabaqāt i Akbari*, II, 109, 111; Bernier, I, p. 203.

³¹⁶ For Punjab horses, *A.A.* I, 133; Cuchha, Bengal and Rajputana horses, *ibid.*; for Cuchha ones also see *Iqbāl-nāma i Jahāngīrī* by M'otamid Khan, Calcutta, p. 110, 1865; and M'asum Bhakkari, *Tārikh i Sindh*, Hyderabad (Sind), 1938, p. 177; for Marwar horses, Sarkar, *Aurangzeb*, III, 407; for those of Bengal, *Ri'yāz us Salātīn*, p. 47.

³¹⁷ Moreland, op.cit., 218, 235.

³¹⁸ *A.A.* I, 66. Prices ranged from 2½ *dāms* per seer of hazel nuts to

rather bulky imports of dried fruits could not possibly run into lakhs of rupees annually.³¹⁹ But if we were to add bullion to the list of the incoming commodities, it would, justify approximately half of the total figure, as the import duty received by the emperor. On the other hand, it would provide the foreign merchants with substantial sums for investing in Indian goods, whose value could sufficiently be high as to yield about Rs. 61,50,000/- as export duty to the imperial revenue.

The size of the caravans is differently stated, possibly because it actually varied from year to year. One version makes it 2,000 camels, 1,500 horses, 100 and odd mules, eight hundred asses and six thousand people strong;³²⁰ according to another statement it was composed of 12,000 to 14,000 camel loads annually.³²¹ Manucci observes "one hundred and fifty thousand horses more or less besides camels".³²² Moreland, however, estimates their volume at 3,000 tons including baggage and provisions.³²³ The frequency of the caravans too is not certain. Generally it is held to have been once a year,³²⁴ but Linschoten in 1585 witnessed at Aleppo the departure of caravans to Kabul twice or thrice a year.³²⁵

In accordance with our earlier computation, the value of the outgoing caravans would be approximately Rupees 62 lakhs. Indian goods intended for this traffic used to be initially collected at Agra from all over the country and then transported by land to Lahore.³²⁶ Amongst these goods were listed cotton fabrics—white—from Golconda and Bengal, ivory mostly from Multan, quicksilver, vermilion, corals, turbans, girdles, all sorts of silken

28 dams per seer of shelled almonds (those with the shell were 11 dams per seer).

³¹⁹ By virtue of its very nature dry fruits can, at best, command a restricted market. Besides it used to be imported by sea as well, a fact which would further delimit its requirement through the Kabul route. For imports through seaports, see Pelsaert, 32, and Moreland, op. cit., 218.

³²⁰ T. Coryat, Foster, 260. ³²¹ Purchas, V, 530.

³²² Manucci, I, 323; see earlier Babar's estimate of 7, 8 to 10,000 laden horses annually, *Bābarnāmah*, I, 219.

³²³ Moreland, op. cit., 221.

³²⁴ *Bābarnāmah*, I, 219; Roe; II, 476; Manucci, I, 323.

³²⁵ *Linschoten*, Hakluyts Voyages, III, 316.

³²⁶ Roe, II, 476.

goods manufactured at Ahmadabad, lac, pepper, spices, numerous drugs,³²⁷ indigo, sugar and other goods.³²⁸ The last three were destined for Persia.³²⁹ The goods used to be loaded on 20,000 camels at Agra bound for Lahore.³³⁰ Indian as well as Central Asian merchants used to buy varieties of cotton goods such as *mandils*, girdles, *'alijāhs*, *maldāh*, *dupattas* and *Qā'im khānis* from Patna and elsewhere in Bihar,³³¹ for their despatch across the frontier via Lahore. This traffic had also enabled Lahore to develop into a clearing house for the Biana indigo,³³² as it was more convenient for the merchants from Central Asia and the Middle East to buy it here³³³ rather than go to Agra. Merchants starting from Aleppo and Isfahan used to come to Lahore via Qandahar.³³⁴ The price paid by these merchants for indigo seems to have been good enough to induce even individual merchants to transport it from Agra to Lahore, as W. Finch himself once did in twelve carts.³³⁵ The Biana indigo must have been the only additional quality provided at Lahore for the benefit of the foreign buyers. The English factors occasionally invested in the Lahore indigo which was generally priced at or under a rupee per pound,³³⁶ (about Rupees 2 per seer,) relatively much higher than the Biana indigo which was normally rated around Rupees thirty-five to forty a maund³³⁷ or eight annas per pound. Incidentally, this marked difference in prices clearly signifies the distinction in the varieties of the Lahore and Biana indigo, apart from underlining the separate existence of Lahore indigo. The investment of the English factors in the Lahore indigo was neither high nor frequent. In 1665 they obtained sixty bales,³³⁸ in 1667 one hundred bales,³³⁹ and in 1669 from two to four or five hundred bales.³⁴⁰ Perhaps the high prices proved prohibitive to the English factors. In fact, their factory at Lahore was liquidated within a few years of its establishment because "Lahore indigo

³²⁷ Pelsaert, 31. ³²⁸ Roe, II, 476. ³²⁹ Ibid.

³³⁰ Ibid. ³³¹ *E.F.*, 1618-21, 195.

³³² Ibid., 326; Pelsaert, 30; *E.F.*, 1634-36, 142.

³³³ Pelsaert, 30; Du Jarric, *Akbar and the Jesuits*, tr. by C. H. Payne, London 1926, p. 85.

³³⁴ Pelsaert, 30. ³³⁵ W. Finch, Foster, 155.

³³⁶ *E.F.* 1668-69, p. 194; also see *E.F.* 1665, p. 5.

³³⁷ See below. ³³⁸ *E.F.* 1665-67, 5.

³³⁹ Ibid., 270. ³⁴⁰ *E.F.* 1668-69, 180.

is as easily available at Agra as at Lahore and with far less expense."³⁴¹ The Lahore indigo, in spite of its high price, seems to have been eminently suitable for the Persian markets and their traders had so far successfully maintained a virtual monopoly of the Lahore market crowding out the European buyers. Thus the English factors, if and when they ventured in that direction, were disappointed in obtaining the desired amount of indigo;³⁴² nevertheless, out of a total purchase of 731,874 lbs. of indigo between 1664 and 1694, some amount was included from Lahore as well.³⁴³ Lahore indigo was also being forwarded by water to Lahiri Bunder, again, for export over the high seas.³⁴⁴

In addition, white cotton goods, yarn, silk *taffacils*,³⁴⁵ turbans, girdles, loin cloths, Bengal cloth, sugar both candied and powdered,³⁴⁶ used to be listed among the cargoes sailing down the river Sindh from Lahore. All these goods were intended for distant countries across the seas. Some of the owners of these goods used to be Sindhi traders who made their purchases at Agra, carted them to Lahore and thence transported them by river to Tattah paying Rupees three per maund³⁴⁷ (for the river journey?).

Lahore was linked with Kashmir through the passes in the Pir Panjal mountains,³⁴⁸ and the river system. These indeed were the only convenient routes between Kashmir and the Mughal empire—a circumstance which rendered Lahore vitally important for the Kashmir trade. Thus it received from Kashmir shawls, silks, boats, woollen stuffs, sugar, saffron, dried raisins, walnuts, paper, fresh fruits, timber and also horses.³⁴⁹ These articles were thence distributed to their respective destinations such as Agra, Kabul or Multan. Their conveyance, up to Lahore, was generally effected by land on the backs of coolies³⁵⁰ and pack animals, or by both.³⁵¹ For goods of great bulk or heavy weight such as timber or boats, the river route must have been employed. Since

³⁴¹ *E.F.* 1618-21, 326. ³⁴² *E.F.* 1665-67, 5; *E.F.* 1668-69, 180.

³⁴³ G. Watt, *Pamphlet on Indigo*, I.O.L. 25 (2235), p. 10.

³⁴⁴ Pelsaert, 32.

³⁴⁵ Striped goods woven both in silk and cotton, see *A.A.* I, 94, for its import.

³⁴⁶ Pelsaert, 32. ³⁴⁷ *E.F.* 1634-36, 192. ³⁴⁸ *A.A.* II, 352.

³⁴⁹ For Shawls, *ibid.*, 353; for paper, Badaoni, III, 202; *Tuzuk*, I, 92-3.

³⁵⁰ *A.N.* III, 846; *A.A.* I, 65. ³⁵¹ *Firishta*, II, 539.

no source of supply of silk yarn to the imperial *kārkhānas* is mentioned, it is not unlikely that Kashmir forwarded part of its own product to supplement the Lahore requirement. Kashmir, apart from its own plentiful local culture of raw silk,³⁵² could always meet its extra needs by obtaining silk from its northern neighbours where it was found in great abundance,³⁵³ and with which Kashmir had close commercial relations.³⁵⁴

Lahore salt was an indispensable commodity for Kashmir and it was carried over the usual Pir Panjal route.³⁵⁵ Other goods collected at Lahore for their further transmission to Kashmir were cotton cloth,³⁵⁶ large and small boats³⁵⁷ and carpets.³⁵⁸ A modern writer adds sugar, embroidered stuffs, and swords from Gujrat town, called Jamdhar,³⁵⁹ to the list of articles to Kashmir from Lahore.

We have earlier seen the list of goods arriving at Delhi from Lahore. Perhaps some lead was also being furnished occasionally to Delhi as in 1751 Jagat Singh *Mutasaddi* was ordered to supply fifty maunds of this article from Lahore and its environs.³⁶⁰ Goods moving in the other direction, from Delhi to Lahore, are not mentioned.

This varied trade of Lahore naturally gave rise to a very prosperous merchant community "who dealt with the whole of India."³⁶¹ The native Hindu *banyā* evidently constituted a sizable part of the total population of the city,³⁶² and they generally belonged to the *khattri* caste.³⁶³ Members of the local Muslim business community had acquired the honorific title of *khwājāh*³⁶⁴ and seem to have occupied one of the wards of the city as it bore their name.³⁶⁵ *Mohalla jauhariyan*,³⁶⁶ likewise, seems

³⁵² A.A. II, 353; Firishta, II, 535; *Tārikh i Rashīdī*, 425.

³⁵³ *Bābarnāmah*, I, 154; Erskine's Introduction, *ibid.*, p. xxxiv.

³⁵⁴ A.A. II, 353; Firishta, II, 539; Bernier, I, 347.

³⁵⁵ *Tuzuk*, II, 147. ³⁵⁶ E.F. 1618-21, 51; Pelsaert, 31.

³⁵⁷ A.A. I, 280. Here Abul Fazl mentions the making of a model ship. For boats see A.A. II, 354.

³⁵⁸ E.F. 1618-21, 51, 58, 167-8; Pelsaert, 31.

³⁵⁹ Md. Akbar, *Punjab Under the Mughals*, Lahore, 1948, p. 242.

³⁶⁰ *Akbbārāt*, 1751-52, p. 38. ³⁶¹ Manucci, II, 186.

³⁶² *Commentary*, 160; W. Finch, Foster, 161; De Laet, 51.

³⁶³ Cunningham, *History of the Sikhs*, London, 1853, p. 10.

³⁶⁴ *Ibid.* ³⁶⁵ Md. Baqar, 307.

³⁶⁶ *Ibid.* 304.

to have been inhabited by the jewellers of the city. Besides, Lahore was also the resort of merchants from all over India who were eager to embark their goods on great boats sailing down to Tattah bound for Ormuz and Persia.³⁶⁷ So many merchants came to the city³⁶⁸ that Manucci observed it to have been "crammed with foreign merchants."³⁶⁹ Even Kashmiris were to be found here dealing in rubbish and secondhand goods.³⁷⁰ All these variegated merchants—Hindu, Indian Muslim, Turki, Tazi, Arabi and Ajami—lived peacefully and amicably at Lahore.³⁷¹ Up to 1712 there is no reference to any shrinkage in the number of merchants at Lahore,³⁷² or in other words, till 1712 the situation continued as it was.

This flourishing trade of Lahore could, however, thrive only as long as peace, order and security prevailed in the areas concerned, especially as most of the trade had to be conducted by land routes. Therefore, as soon as these essential material conditions were removed the traffic came to an abrupt end. The rise of the Sikh insurgents plunged the entire province (including the contiguous cities of Sirihind³⁷³ and Thaneshwar³⁷⁴) into confusion and anarchy, because, as Sarkar observes, the Sikhs after 1708 had become "merely moving bodies of brigands . . . essentially plunderers, uninspired by any ambition to build up an organised government in the land."³⁷⁵ Thus, the trade of Lahore received a sharp jolt. For several decades there is no mention of any traffic with Lahore; all the sources are concerned only in detailing the unsettled political state. Even as late as the 1770s, the situation had not improved; routes were still too hazardous to be risked even by wayfarers.³⁷⁶ Ordinary travellers thanked Providence if they could effect their escape unmolested.³⁷⁷ The

³⁶⁷ Purchas, V, 530.

³⁶⁸ *Commentary*, 159; Pelsaert, 30; *A.A.* II, 317; Du Jarric, 85.

³⁶⁹ Manucci, II, 186. ³⁷⁰ *Commentary*, 159.

³⁷¹ *'Ajā'ib*, 181b. ³⁷² *Bahjat*, pp. 62-4.

³⁷³ Cunningham, op. cit., II, 208; *Cambridge History of India*, IV, pp. 322, 323.

³⁷⁴ *Bahjat*, 65. ³⁷⁵ Sarkar, *Aurangzeb*, IV, 363.

³⁷⁶ G. Md. Khan, 14b, 15a, 15b, 19a-b, 66a-b; also see *Travels of Sheikh Rahim Ali*, ff. 5a-b.

³⁷⁷ *Early European Accounts of the Sikhs*, ed. by G. Singh, Calcutta, 1962, p. 68.

merchants dispersed; even the Sikh merchants moved out of the Punjab, settling particularly in Bihar and Bengal.³⁷⁸ The Central Asian merchants stopped frequenting the Punjab and entered the Gangetic valley by marching across the Rajputana desert and as a consequence, Jaipur rose to importance.³⁷⁹

However, it seems that after the 1770s some semblance of stability was achieved at Lahore as we hear of some imports from Murshidabad via Patna by boat.³⁸⁰ Usually the goods were raw silk, cotton fabrics, silken stuffs and chinaware.³⁸¹ Thus in 1777 the total cargo forwarded from Patna to Lahore was composed of 1662 maunds 20 seers of raw silk, 11,813 pieces of cotton goods and 9,656 pieces of silken stuffs. In addition, there were 3 maunds of vermilion³⁸² but no chinaware. The highest volume amongst these goods is that of raw silk, a fact which would suggest that the local silk industry was still lingering so that this import was carried on in order to feed it. The volume of cotton and silken fabrics is not big enough to indicate any further transmission from Lahore; therefore, these must have been for local use only.

There is some evidence of movement of goods to and from the Punjab in c. 1794. For instance, imports from Gujarat³⁸³ or exports to countries lying west of Attock are mentioned.³⁸⁴ It is, however, extremely doubtful if Lahore with its receding position by the end of the 18th century handled any part of this traffic, as it was carried on from Amritsar,³⁸⁵ the newly-founded Sikh capital.

³⁷⁸ *History of the Sikhs, Trans Sutlej Sikhs, 1769-99*, by H. R. Gupta, Lahore, 1944, Vol. III, p. 49. It is interesting to note that Omichand "who took so active though unfortunate a share in the Revolution which the English effected in Bengal was a Sikh, so is his adopted son who is now an inhabitant of Calcutta." Polier and Foster, *Early European Accounts*, p. 67. For bankers of Lahore living in Jammu in 1758-59, see *Studies in the Later Mughal History of the Punjab 1707-93*, by H. R. Gupta, Lahore, 1944, p. 143.

³⁷⁹ Gupta, *Studies in the Later Mughal*, etc. pp. 149-50. For the foundation of Jainagar (Jaipur), see G. Md. Khan, 98b.

³⁸⁰ *B.B. of Revenue and Miscellaneous Proceedings*, Range 98, Vol. 22.

³⁸¹ *Ibid.* ³⁸² *Ibid.*

³⁸³ Griffith's Report, *Early European Accounts*, p. 93.

³⁸⁴ *Early European Accounts*, p. 106; Gupta, *History of the Sikhs 1769-99*, III, p. 147.

³⁸⁵ Gupta, *op. cit.*, p. 149. He also says that this trade route was not fixed.

Agra : By virtue of its central position as noted above Agra had become "the emporium of the traffic of the world."³⁸⁶ According to *'Ajā'ib-i-Duniya*, all goods moving between any two different parts of the empire were required to make a halt at Agra.³⁸⁷ Thus Agra, apart from handling its own imports and exports, was also acting as a transit depot which greatly added to its commercial activity.

We have already seen that goods arriving at Lahore from the north, west and south were being forwarded to Agra for its local consumption as well as for further distribution. The Armenian merchants used to bring quantities of broadcloth here by the same overland route.³⁸⁸ Surat and Burhanpur sent large quantities of raw cotton, printed cloth, along with the red *salu* of the latter city to Agra on their way to Bengal.³⁸⁹ The Ahmadabad (Gujarat) consignment is not similarly recorded, but from stray references we gather that rich silken goods,³⁹⁰ quality carpets³⁹¹ and medium varieties of cotton goods (such as *baftah*),³⁹² were being sent to Agra. In addition, "luxury goods of all descriptions",³⁹³ coined silver in the form of *larin*, pearls, horses and silken goods disembarked at the Gujarat ports,³⁹⁴ might have formed part of this consignment, for Agra was full of such articles.³⁹⁵ Even a rare commodity like diamond was so well supplied here that as many as 100,000 rials-of-eight could be invested in them within a week.³⁹⁶ The spices were being supplied to Agra mainly by the Indian merchants³⁹⁷ from the Deccan, though the Dutch too got interested in this trade for

³⁸⁶ A.A. II, 191.

³⁸⁷ *'Ajā'ib*, 180b. In the absence of other convenient routes this was the most practicable alternative. Pelsaert, 6.

³⁸⁸ E.F. 1642-45, 18, E.F. 1646-51, 50 and E.F. 1651-54, 30, here it says that it was brought from Persia.

³⁸⁹ Pelsaert, 9.

³⁹⁰ A.A. I, 93. Moreland, op.cit., 172-3.

³⁹¹ A.A. I, 55; and 88.

³⁹² Ibid., 94.

³⁹³ Moreland, op.cit., 205. ³⁹⁴ Ibid., 209.

³⁹⁵ Jourdain, 163; C. C. Brahman, 56b-57a; *Bahār i Sukhan*, 161b; *Khulāsat*, 23.

³⁹⁶ Jourdain, 164. Rial-of-eight was a Spanish coin equal to about Rupees two of Akbar, see Moreland, op.cit., p. 57, and n.

³⁹⁷ Mundy, II, 140; Pelsaert, 22.

some decades in the middle of the 17th century.³⁹⁸ Sironj muslin used to be acquired for the imperial seraglio and principal courtiers,³⁹⁹ while the chintz of the same place being highly esteemed⁴⁰⁰ was perhaps bought for a more general sale. Similarly, the leather goods of Sind are stated to have been held in high estimation in Hindustan.⁴⁰¹ It is, therefore, possible that Agra too received its share of these goods. From Bengal goods arrived usually by boats which were laden with an indescribable quantity of merchandise.⁴⁰² Thus scented oil,⁴⁰³ cotton fabrics,⁴⁰⁴ silken goods,⁴⁰⁵ raw silk⁴⁰⁶ aloe wood,⁴⁰⁷ bamboos,⁴⁰⁸ elephants,⁴⁰⁹ timber,⁴¹⁰ slaves and eunuchs⁴¹¹ used to be delivered at Agra. The grass silk cloth of Bengal called *tasser* was also procurable at Agra.⁴¹²

The English traders who had installed a regular factory at Agra in 1618 used to carry overland from Surat coral,⁴¹³ ivory,⁴¹⁴ vermilion,⁴¹⁵ quicksilver,⁴¹⁶ porcelain⁴¹⁷ and broadcloth amongst other miscellaneous goods of minor importance. As broadcloth was also being imported from Persia by the Armenian merchants over the north-western land route, the market used to be glutted with it,⁴¹⁸ leaving very little chance for the English ones to command any satisfactory sale.⁴¹⁹ The Dutch, too, had diverted to Agra on account of the Gujarat

³⁹⁸ *Dutch Records*, Vol. VI (1621-25), p. cxviii, 8; *op. cit.*, Vol. X, 1634-37, p. cccxx, 6; *E.F.* 1622-23, pp. 42-3; Bernier, I, 203.

³⁹⁹ Tavernier, I, 36-7. ⁴⁰⁰ *Ibid.*, 56.

⁴⁰¹ Linschoten, quoted by R. T. Sorley, *Shāh Abdul Latif Bhatti*, Oxford, 1941, Bk. I, p. 90.

⁴⁰² Pelsaert, 6.

⁴⁰³ Pyrard, *The Voyage of F. Pyrard*, London, 1887, Vol. I, p. 329.

⁴⁰⁴ Pelsaert, 4; Pyrard, I, 329.

⁴⁰⁵ Pyrard, I, 328; Nafis Ahmed, *An Economic Geography of East Pakistan*, Oxford, 1958, p. 94.

⁴⁰⁶ *E.F.* 1618-21, 46; also see Chapter III. Pelsaert, 4, 7.

⁴⁰⁷ *Bahāristān i Ghaibi*, by Mirza Nathan, Gauhati, 1931, Vol. II, 714.

⁴⁰⁸ Pyrard, I, 329. ⁴⁰⁹ *Ibid.*, 331. ⁴¹⁰ *Ibid.*, 333.

⁴¹¹ *Tuzuk*, II, 195, 201; Pyrard, I, 332.

⁴¹² *E.F.* 1618-21, 112. ⁴¹³ *E.F.* 1618-21, 259, 302.

⁴¹⁴ *Ibid.*, 302. ⁴¹⁵ *Ibid.*, 47; *E.F.* 1651-54, 112-13; Pelsaert, 25.

⁴¹⁶ *E.F.* 1630-33, 206, *E.F.* 1634-36, 70; Moreland, *op. cit.*, 147n; Pelsaert, 25.

⁴¹⁷ *E.F.* 1618-21, 47.

⁴¹⁸ *E.F.* 1642-45, 18; *E.F.* 1651-54, 301. ⁴¹⁹ *E.F.* 1646-50, 7.



famine, had set up their factory, and they too were interested in disposing of their broadcloths,⁴²⁰ thus further cloying the market with it. Besides they brought large and small mirrors, gold and silver laces and iron wares.⁴²¹ But their principal import was copper from Japan,⁴²² a trade which they had received as a legacy from the Portuguese after their decline.⁴²³

There is no mention of the commercial traffic of Agra after the English factors had wound up their factory in 1663 for their own private reasons.⁴²⁴ Evidently the circle of their transactions had narrowed down though they still carried on some business through their paid Indian agents.⁴²⁵ We do not hear of their imports at Agra till about a century later. Patna in the 1770s is reported to have been exporting goods received from Bengal to Agra after the English had assumed the *Diwāni* of that eastern region in 1765.⁴²⁶ The goods were despatched from several points in Bengal, such as Dacca, Calcutta and Murshidabad,⁴²⁷ but the bulk came from the last-mentioned place. All cargoes travelled by boats via Patna,⁴²⁸ and were composed of miscellaneous goods in inconsiderable quantities. Thus, for example, in 1773 there was one bale of net (*jhimil* in the original), one maund of beads, 379 pieces of silk, three maunds of camphor, four maunds and twenty seers of elephants' teeth, and two seers of raw silk. But the amount of pepper here is rather notably high—250 maunds⁴²⁹—though not high enough to suggest further transportation. Similarly in 1777 the import invoice consisted of 1087 pieces of cotton cloth including 236 pieces from Dacca, 1149 maunds of ginger, 500 maunds of *peepul*,⁴³⁰ five maunds ten seers of pepper, sixty six maunds twenty seers of copper, twenty maunds of *qala'i* (tin?), forty four maunds thirty seers of vermilion, six maunds of quicksilver, five maunds of lead and five seers of cochineal.⁴³¹ The relatively high volume of ginger might be attributed to part

⁴²⁰ Bernier, I, 292.

⁴²¹ Ibid. ⁴²² Ibid, 203; K. Glamann, *Dutch-Asiatic Trade, 1620-1740*, Copenhagen, 1958, p. 167.

⁴²³ Glamann, 167. ⁴²⁴ *E.F.*, 1661-64, 324.

⁴²⁵ Ibid.; *E.F.* 1665-67, p. 2. ⁴²⁶ See Chapter III.

⁴²⁷ *B. B. of Rev. and Misc. Pcds.*, Range 98, Vol. 22.

⁴²⁸ Ibid. ⁴²⁹ Ibid., and Range 98, Vol. 15.

⁴³⁰ This word seems to be a corruption of "*filfil*" meaning red chillies.

⁴³¹ *B.B. of Rev. and Misc. Pcds.*, Range 98, Vol. 22.

distribution to Thaneshwar where conserves—*murabba*, *chutney* and *achār*—of vegetables and fruits was a flourishing industry.⁴³² The rest are, again, on such a minor scale as to indicate mere local consumption of the imported goods.

In the earlier period the returning vessels from Agra used to carry opium, lead, asfoetida, carpets,⁴³³ printed cloths, *salu* of Burhanpur, ormesins⁴³⁴ of Lahore and raw cotton from Surat and Burhanpur.⁴³⁵ The one fleet that we know about of 1585, consisted of 180 boats.⁴³⁶ Upper India salt too was much in demand in Bengal;⁴³⁷ in 1607 emperor Jhangir had sent four hundred thousand maunds to Sultan Jahandar, then stationed in Bengal as its subedar.⁴³⁸

Apart from handling the transit traffic, Agra had its own products to export. These commodities were either produced within the city or had been collected from its environs. Cotton stuffs including carpets, indigo, sugar,⁴³⁹ and saltpetre were the principal articles of the Agra export trade. Further sizable quantities of cotton goods, sugar and indigo used to be collected here from such distant neighbours as Samana and Sirhind in the west, and Lucknow, Khairabad and Benaras in the east. These additional stocks would swell the supplies in the Agra market attracting merchants from far and near to contract business. Some of the traders, such as the English and the Dutch, at times undoubtedly visited the places of the origin of these goods for their investment in order to effect some reduction in the prices. But these foreign traders, unlike the individual merchants, were acting on behalf of their organised companies where relatively large sums were involved. At all events, this practice does not imply that the Agra market had run out of the required goods as the number of native and other traders actively engaged in business still remained large enough from the point of view of the period in question.

The most detailed account of this aspect of Agra trade is

⁴³² E.F. 1637-41, 134. Mangoes, hur (myrabolans) and ginger were the chief articles of conserves.

⁴³³ R. Fitch, Ryley, 100.

⁴³⁴ Perhaps a kind of cotton cloth, see Chapter IV.

⁴³⁵ Pelsaert, 9. ⁴³⁶ R. Fitch, Ryley, 100.

⁴³⁷ Ibid.; *Bahāristāni i Ghaibi*, I, 5; Pelsaert, 9.

⁴³⁸ *Bahāristān i Ghaibi*, I, 5. ⁴³⁹ See Chapter VI.

found in the Records of the English factors compiled to be submitted to their distant principals. These records naturally relate to the period of their stay at Agra.

Cotton fabrics occupied the leading position in the export trade of Agra. In the case of the Dutch traders at least, it was the lure of cotton goods that had drawn them to this city and prompted them to instal their factory for the purpose.⁴⁴⁰ Even the English could not do without the Agra fabrics. Selling them abroad (for example, in South East Asia or the Middle East), they earned the money wherewith to buy indigo⁴⁴¹ so indispensable for their home industries.⁴⁴² The actual trade in Agra cotton goods is, however, covered below under the cotton textile industry. The trade of sugar has, likewise, been considered under the sugar industry in the last chapter.

Indigo: The export trade in indigo dates back to ancient times.⁴⁴³ At Biana there was only a twenty to thirty *kos* long tract,⁴⁴⁴ that yielded 300 bales of indigo annually.⁴⁴⁵ Koil,⁴⁴⁶ Khurja,⁴⁴⁷ Mewat,⁴⁴⁸ Hinduan,⁴⁴⁹ Cannowa⁴⁵⁰ and Lalsot⁴⁵¹ also produced indigo of varying goodness. Average annual yield of the Khurja Koil crops amounted to 1000 bales,⁴⁵² as was

⁴⁴⁰ *Dutch Records, 1629-34*, Vol. IX, p. cccxviii, 2-3.

⁴⁴¹ Moreland, *India at the Death of Akbar*, 183; he maintains that the English were primarily interested in its indigo, the purchase of cotton cloth here was only a side line.

⁴⁴² *Court Book XV, Court Minutes of East India Company, 1635-39*, Sainsbury, 38, p. 202; op.cit. Sainsbury, 34, p. 195.

⁴⁴³ Lassens History, tr. K. P. Jayswal, *J.B.O.R.S.*, Vol. X, 1924, Part III, pp. 263-4.

⁴⁴⁴ W. Finch, Foster, 152; De Laet, 46.

⁴⁴⁵ Pelsaert, 13. For Biana as the "chief place for indigo" also see Purchas, V, 529. Here the term "Biana indigo" is evidently applied to that of Biana alone. But it was being used more generally too for all the indigo produced in or around the subah of Agra, see figure for 1619, p. 92.

⁴⁴⁶ Pelsaert, 15; W. Finch, Foster, 179; De Laet, 46; Munday, II, 76.

⁴⁴⁷ Pelsaert, 15; W. Finch, Foster, 179; De Laet, 46; *E.F.* 1646-51, 225; 1655-60, 63.

⁴⁴⁸ Pelsaert, 15.

⁴⁴⁹ *E.F.* 1646-51, 336; *E.F.* 1651-54, 51; *E.F.* 1655-60, 63.

⁴⁵⁰ W. Finch, Foster, 151.

⁴⁵¹ Lalsot lay 23 *kos* S. W. of Biana. Its indigo was of "base quality". Mundy, II, 235.

⁴⁵² Pelsaert, 15.

also that of Mewat,⁴⁵³ but at Cannowa the output did not exceed 500 maunds in normal years.⁴⁵⁴ The excellence of indigo in this region is attributed to the availability of brackish water and denseness of soil.⁴⁵⁵

Very little of Biana indigo was exported but it used to be distributed to those parts of the country where it was not produced.⁴⁵⁶ We have earlier seen it arriving at Lahore. In Multan its price could go up as high as Rupees eighty per maund.⁴⁵⁷ It could be bought as far down as Surat : in 1643 the English merchants bought here 301 bales (that is, about 1204 maunds) at Rupees thirty two per Surat maund of 33 lbs.⁴⁵⁸ Again, in 1656 the merchants of Agra, not satisfied with the prices offered by the local traders, wanted to send their stock down to Surat for sale.⁴⁵⁹

The regular trade in this article, however, came to the forefront with the advent of Europeans at Agra. The English and the Dutch were the chief ones amongst them interested in its purchase for its employment in their domestic industries. Occasionally, they (the European traders) acted as mere carriers, took it to some point across the high seas, loaded the vessels with new cargoes and sailed back to Indian ports.⁴⁶⁰ The period of their most active years spreads from 1618 to 1672, in the course of which they, according to the Records, bought the following amount of indigo.

	<i>Date</i>	<i>Volume</i>	<i>Origin</i>	<i>Traders</i>	<i>Reference</i>
1	14. 2.1618	900 maunds	Biana	English	<i>Dutch Rec.</i> 1615-20, Vol. III, p. cxv, 2.
2	1.12.1618	951 fardles ⁴⁶¹	Biana	English	<i>E.F.</i> 1618-21, 47.
3	1.12.1618	80 fardles	Biana	Flemings	<i>E.F.</i> 1618-21, 46-7.

⁴⁵³ Ibid. ⁴⁵⁴ W. Finch, Foster, 151.

⁴⁵⁵ Pelsaert for Biana, p. 13; W. Finch for Cannowa, Foster, p. 151.

⁴⁵⁶ *E.F.* 1637-41, 36.

⁴⁵⁷ *E.F.* 1642-45, 94-5; For the weight of Surat maund in lbs., see note.

⁴⁵⁸ *E.F.* 1655-60, 66.

⁴⁵⁹ *Dutch Records, 1629-34*, Vol. IX, p. ccxvi, 1; *E.F.* 1634-36, 1. In this instance it was carried to Persia; for similar consignment of the English for Basra, see *E.F.* 1642-45, 163.

⁴⁶⁰ Pelsaert, 15.

⁴⁶¹ A fardle was equal to 4 maunds, *E.F.* 1618-21, p. 60, n. 1.

	<i>Date</i>	<i>Volume</i>	<i>Origin</i>	<i>Traders</i>	<i>Reference</i>
4	1619	3,562 maunds	Biana	English	<i>E.F.</i> 1618-21, 61.
5	21. 1.1621	193 fardles	Biana	English	<i>E.F.</i> 1624-29, 228.
		500 fardles	Biana	Dutch	<i>E.F.</i> 1624-29, 228.
6	9. 3.1630	1000 barrels (of 140 lbs each) ⁴⁶²		English	<i>E.F.</i> 1630-33, p. 7.
7	1633	1,480 bales ⁴⁶³	Agra	English	Sainsbury, <i>Calendar of State Papers, Colo- nial Series, East India & Persia</i> , London, 1892, 1630-34, p. 340.
8	1633	1,500 bales	Agra	English	Op. cit., p. 360.
9	2. 1.1634	1,500 fardles	Agra	Dutch	<i>Dutch Rec.</i> 1629-34, Vol. IX, p. ccxv, 1 ; <i>E.F.</i> 1634-36, 1.
10	20. 6.1634	300,000 lbs.	Biana ?	Dutch	<i>Dutch Rec.</i> 1629-34, Vol. IX, p. cccxviii, 15.
		140,000 lbs.		Dutch	<i>Ibid.</i>
11	14.12.1634	500 parcels		Dutch	<i>Ibid.</i> , p. cccx, 6.
12	29.12.1634	543 bales		English	<i>E.F.</i> 1634-36, 70.
13	28. 4.1636	4000 maunds		Dutch	<i>Ibid.</i> , 205-6.
14	28. 4.1636	1000 maunds		English	<i>Ibid.</i>
15	9.12.1639	500 bales		English	<i>E.F.</i> 1637-41, 196.
16	29.12.1640	457 bales		English	<i>Ibid.</i> , 278
17	29.12.1640	?		Dutch	<i>Ibid.</i>
18	29.12.1640	600 or 800 bales		English	<i>Ibid.</i>
19	17. 1.1643	1 parcel		English	<i>E.F.</i> 1642-45, 94.
20	17. 6.1643	2,000 bales		Dutch	<i>Ibid.</i> , 84.
21	17. 6.1643	439 bales		English	<i>Ibid.</i>
22	17. 6.1643	500 bales		English	<i>Ibid.</i>
23	27. 1.1644	505 bales		English	<i>Ibid.</i> , 136.
24	24. 3.1644	?		English	<i>Ibid.</i> , 163.
25	12.11.1645	worth Rs. 80,000/-		English	<i>Ibid.</i> , 304.

⁴⁶² Fifty six pounds were equal to one Akbari maund. Moreland, op. cit., 53.

⁴⁶³ One bale consisted of 4 maunds as below 500 bales are said to be equal to 2000 Akbari maund, see *E.F.* 1642-45, p. 84.

	<i>Date</i>	<i>Volume</i>	<i>Origin</i>	<i>Traders</i>	<i>Reference</i>
26	3. 1.1646	630 bales		English	<i>E.F.</i> 1646-50, 12.
27	30. 3.1646	403 bales		English	<i>Ibid.</i> , 33.
28	15. 2.1650	Rs. 70,065- 17 pice worth in- cluding conveyance cost.		English	<i>Ibid.</i> , 300.
29	14.12.1650	100 bales	Biana & Hinduan	English	<i>Ibid.</i> , 335.
30	2.1656	450 bales	Biana & Khurja	Dutch	<i>E.F.</i> 1655-60, 63.
31	1670	300 bales	Biana & Khurja	English	<i>E.F.</i> 1670-77, N.S. Vol. I, p. 204.

Thus in the course of fifty two years the aggregate minimum export of indigo by the European factors was 1,02,959 maunds,⁴⁶⁴ plus two unknown quantities and 500 parcels. Putting aside the latter two items we get a minimum annual export of 1,979.9 or 2080 maunds on an average for the said period. But if we exclude the inactive years then the minimum annual export by the European Companies, on the basis of the total above, mounts up to 6,863.9 (or 6864) maunds. In the list above we find that no transactions were reported for several years. Brief intervals of inactivity ranging from one to three years were frequent. They were liable to be caused by several factors. In a year of low productivity, shortage of supplies could push up indigo prices from Rupees 35/36⁴⁶⁵ to Rupees 40/46 a maund.⁴⁶⁶ As both the principal companies, the English and the Dutch, were perpetually short of funds and the commodity could not be bought on credit, they were at times prevented from purchasing the desired amount.⁴⁶⁷ The companies used to invest in the Biana indigo in spite of its normally higher cost than the

⁴⁶⁴ Bales, fardles and lbs. have all been converted here into maunds as the rates shown above. The two entries in Rupees have also been calculated in maunds at an average price of Rupees 37/- one rupee in excess of the stated price in order to offset the higher price years.

⁴⁶⁵ *E.F.* 1646-51, 276.

⁴⁶⁶ *E.F.* 1618-21, 260; *E.F.* 1646-51, 219, 276.

⁴⁶⁷ *E.F.* 1624-29, 228, 239.

Sarkhej (Gujarat) indigo,⁴⁶⁸ as the former was considered of better quality.⁴⁶⁹ The increased pressure on the demand for Agra indigo enabled the local dealers occasionally to withhold stocks in order to force the prices up.⁴⁷⁰ Normally, price in a good season was Rupees thirty or thirty six a maund. Several reasons, however, tended to raise it. Keen competition amongst the buyers sometimes enabled the merchants to demand an increasingly higher value;⁴⁷¹ for example, in 1636, starting at Rupees forty five a maund they moved up to Rupees fifty six a maund.⁴⁷² In fact, even when the Dutch and English jointly declined to buy any indigo so as to bring the prices down, their efforts proved to be in vain.⁴⁷³ A bad season and the consequent shortage of the commodity was, of course, a legitimate cause of a rise in price,⁴⁷⁴ to the extent of Rupees forty six a maund.⁴⁷⁵ Quite often, though the crops were good, unforeseen exigencies would interrupt the manufacture of the article, again leading to its scarcity and a rise in prices, as happened in 1654 when it was sold for Rupees forty eight a maund.⁴⁷⁶

European factors experienced many other difficulties in making investment in the Agra indigo. It could not be bought on credit⁴⁷⁷ as the local merchants were not agreeable to the proposition.⁴⁷⁸ Money could not be freely borrowed locally as the interest charge was high and the Surat factors had positively disallowed borrowing "except under very special circumstances."⁴⁷⁹ Consequently, as seen earlier, the companies were at times prevented from purchasing the desired amount. Further, good quality and cheap indigo could be bought only if contracted for ahead,⁴⁸⁰ otherwise the supply of ready indigo was liable to

⁴⁶⁸ *E.F.* 1618-21, 184; *E.F.* 1624-29, 326; *E.F.* 1637-41, 96.

⁴⁶⁹ *E.F.* 1618-21, 184.

⁴⁷⁰ *E.F.* 1646-51, 219; *E.F.* 1651-54, 51.

⁴⁷¹ Sainsbury, *Calendar*, 1630-34, p. 105-6.

⁴⁷² *E.F.* 1634-36, 206.

⁴⁷³ *E.F.* 1634-36, 206; *E.F.* 1637-41, 278; *E.F.* 1642-45, 303.

⁴⁷⁴ Sainsbury, *op. cit.*, 105-6.

⁴⁷⁵ *E.F.* 1646-51, 276; *E.F.* 1665-67, 27.

⁴⁷⁶ *E.F.* 1651-54, 221.

⁴⁷⁷ Sainsbury, *op. cit.*, 183.

⁴⁷⁸ *E.F.* 1624-29, 228.

⁴⁷⁹ *E.F.* 1630-33, 206; *E.F.* 1634-36, 1.

⁴⁸⁰ *E.F.* 1670-77, Fawcett, *N. S. I.*, 226, 238.

run short causing scarcity and rise in prices. Sometimes the indigo was not dry enough to be bought,⁴⁸¹ so that when the traders were obliged to procure it in this damp state⁴⁸² it occasioned them a loss by shrinkage.

Usually the Agra indigo bought by the European factors was destined for England,⁴⁸³ Persia⁴⁸⁴ and Basrah.⁴⁸⁵ From Agra consignments used to be dispatched to Surat by land route on camels travelling in caravans,⁴⁸⁶ whence they were embarked on ships sailing westwards.⁴⁸⁷

The native merchants were still carrying on a very lively trade in this article not only by overland route to Persia but also over high seas by hiring accommodation or even acquiring English or Dutch ships for transportation.⁴⁸⁸ Presumably the added pressure of the demand on the commodity by the Europeans⁴⁸⁹ in some way or other affected the interests of the native indigo traders so that the emperor was made to intervene. In 1633 he farmed out the monopoly of the purchase of all indigo in the kingdom to one Manohardas in return for Rupees 200,00/- per annum out of his profits.⁴⁹⁰ Thus Monohardas was in a position to force the prices up "especially that of the Biana (indigo) as the Dutch and English usually buy it."⁴⁹¹ The English factors realised that it was rivalry between them and the Dutch in the purchase of this article that had led to the monopoly of indigo.⁴⁹² To meet the situation the two Companies duly signed a contract at Surat to

⁴⁸¹ *E.F.* 1646-50, 56.

⁴⁸² *E.F.* 1630-33, 155; *E.F.* 1646-51, 219.

⁴⁸³ For the import of indigo in England from Agra and Lahore, see G. Watt, *Pamphlet on Indigo*, p. 10; Sainsbury, *Calendar*, 1630-34, pp. xii, 622. He says that in six vessels out of the nine that returned to England during the period (1630-34) carried indigo valued at £ 303,000. This would, of course, be inclusive of the Gujarat indigo, apart from that of Agra.

⁴⁸⁴ *E.F.* 1634-36; 1; *E.F.* 1646-51, 225, 300. Biana indigo is said to have been in great favour in Persia, see *E.F.* 1622-23, 23.

⁴⁸⁵ *E.F.* 1646-51, 300. ⁴⁸⁶ *E.F.* 1645-51, 300.

⁴⁸⁷ *E.F. Passim.* ⁴⁸⁸ *E.F.* 1634-36, 142.

⁴⁸⁹ The Dutch and English as chief customers of Biana indigo, see *E.F.* 1642-45, 303.

⁴⁹⁰ *E.F.* 1630-33, 324. It also gives some further details of the terms, stipulated in the Imperial Grant.

⁴⁹¹ *E.F.* 1630-33, 325. ⁴⁹² *E.F.* 1634-36, 142.

suspend purchases in order to bring the prices down.⁴⁹³ The Dutch, however, violating the agreement,⁴⁹⁴ paid Rupees sixty one per maund at Agra for not less than 1500 fardles. The English factors at Agra, in retaliation disregarding the clauses of the Surat injunctions, bought 543 bales at the same price.⁴⁹⁵ in the meantime, in June 1634, the emperor had again granted the monopoly to Mir Musa.⁴⁹⁶ To "counteract its disastrous consequences" the two companies again decided to act in concert.⁴⁹⁷ But all these schemes do not seem to have had any effect either on the imperial policy or on the attitude of other traders interested in the Biana indigo. In fact, the English factors at Surat complained that "though we considering the rates too high did not invest, the Armenian and other merchants purchased it and transporting it overland gained great profit—other merchants report that it has sold for 200 larins⁴⁹⁸ the Surat maund."⁴⁹⁹ Eventually it was Mir Musa, induced by the Dutch to exercise his personal influence at the Court, who interceded in June 1634⁵⁰⁰ on their behalf. In April 1635 the monopoly of the Biana indigo was abolished under an imperial firman.⁵⁰¹ The price,

⁴⁹³ *E.F.* 1634-36, I.

⁴⁹⁴ *E.F.* 1634-36, 1. The Dutch, however, held that their Agra factors were ignorant of the treaty with the English at Surat, see *Dutch Records*, 1629-34, Vol. IX, p. ccxv, 1.

⁴⁹⁵ Several versions are related about this incident. The Report of 6th February 1634 does not mention the volume or price, see *E.F.* 1634-36, 11. On the next page in the same volume it says that 5000 Akbari maunds of indigo was bought by Fremlin @ Rs. 64 per maund, with some additional charges to the value of Rupees two per maund. Finally the report of 22.8.1635 makes it 2000 maunds at Rs. 63 or thereabouts, see *E.F.* 1634-36, 112.

⁴⁹⁶ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 4; also see *op. cit.*, Vol. X, p. cccxiv, 1; Mir Musa was the governor of Surat, *op. cit.*, 1629-34, p. cccxviii, 17.

⁴⁹⁷ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 4.

⁴⁹⁸ The silver larin was a Persian money worth rather less than half of one of Akbar's rupees. Moreland, *India at the Death of Akbar*, 57. Surat maund being only 33½ lbs. was about half of Agra maund, the price in Persia calculated in Agra money and weights would be about Rs. 200 per maund.

⁴⁹⁹ *E.F.* 1634-36, 38.

⁵⁰⁰ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 17.

⁵⁰¹ *Dutch Records*, 1634-37, Vol. X, p. cccxiv, 1; *E.F.* 1634-36, 138.

however, remained at Rupees forty eight to fifty a maund.⁵⁰² This incident of monopoly reflects that the European Companies occupied a relatively insignificant position at this stage in the internal commercial set-up. Biana indigo, their primary interest,⁵⁰³ was still being largely commanded by the non-European merchants. In view of this fact, we may conclude that the aggregate export of the Companies shown in the foregoing table could not have accounted for more than a fraction of the total export of indigo from Agra during the period.

The growing disorder in the country towards the end of the seventeenth century enhanced the element of risk in long-distance land transport. Thus the consignment of 1670 is the last on record; thereafter the indigo trade of Agra recedes into obscurity. The cultivation of indigo in other parts of the country⁵⁰⁴ reduced the importance of the Agra manufactures, the more so, as the new areas, being situated nearer to Surat, had less cartage to pay. Indeed, the Agra indigo had been brought so low in demand by the English factors that in the course of thirty years, 1664-94, the joint consignment from Lahore and Agra, according to Watt, consisted of not more than 731,874 lbs. or 24,396 lbs. annually.⁵⁰⁵

The European factors at Agra were interested in its saltpetre also. Its manufacture so far had, however, been inadequate owing to the low demand.⁵⁰⁶ With certainty of custom, the article could be produced up to the desired quantity. But the English and the Dutch were again impeded by the shortage of funds.⁵⁰⁷ Like the indigo merchants, the saltpetre dealers declined to transact any business on credit.⁵⁰⁸ Besides the king had prohibited the purchase and transportation of saltpetre without licence, which further involved the factors in considerable trouble.⁵⁰⁹ Moreover, the emperor in 1647 had forbidden the manufacture of this commodity in any part of the country except the *khalsa* or crown land. But this measure could easily be overcome by corrupting the men concerned with small bribes.⁵¹⁰ The factors had also

⁵⁰² E.F. 1634-36, 138.

⁵⁰³ Sainsbury, *Calendar*, 1630-34, 622.

⁵⁰⁴ E.F. 1665-67, 148; also see p. 164.

⁵⁰⁵ G. Watt, *Pamphlet*, p. 10.

⁵⁰⁶ E.F. 1624-29, 239. ⁵⁰⁷ E.F. 1634-36, 66. ⁵⁰⁸ Ibid.

⁵⁰⁹ E.F. 1624-29, 270. ⁵¹⁰ E.F. 1646-51, 121-2.

devised the plan of housing their saltpetre at Ibrahimabad,⁵¹¹ which was situated in the sarkar of wazir Sa'adullah Khan, where they could avoid the imperial search.⁵¹² Under these circumstances the recorded volume of saltpetre purchased and exported by the English factors, during 1626-1652, was 17,160 maunds in six irregularly spaced instalments of unequal amounts.⁵¹³ Compared with the export of this commodity from Patna,⁵¹⁴ the volume from Agra was inconsiderable. Evidently it was once again the inconvenient long-distance land transport that placed Agra commercially at a disadvantage.

Agra merchants: As soon as it was made the capital, a large number of Christian and Muslim merchants, along with numerous Hindu *banyas* had established themselves at Agra.⁵¹⁵ These *saudāgars* and *khattris*⁵¹⁶ owned immense wealth and fortune.⁵¹⁷ Some of these wealthy merchants had strong credit⁵¹⁸ and not infrequently commanded influence even at Court.⁵¹⁹ During the period of the decay of the Mughal rule, they often advanced sums of money as loans to the now-bankrupt nobility, if not by free will then by force.⁵²⁰ The native merchants generally lived at Sikandara, a part of the town on the other side of the river and the main business centre.⁵²¹ Agra too, like Delhi and Lahore, had its share of foreign merchants who resided in the city proper.⁵²²

⁵¹¹ Omitted in the *Ā'in*; perhaps of later foundation.

⁵¹² *E.F.* 1655-60, 66.

⁵¹³ Three thousand maunds in 1626 (*E.F.* 1624-29, 153); 1000 bales or 4000 mds. in 1628 (*E.F.* 1624-29, 239); 2000 mds. again in the same year (*ibid.*, 270); 12000 mds. in 1647 (*E.F.* 1646-51, 121); 60 ox loads or 240 mds. calculating on the basis of 4 mds. as the amount of each ox load (P. Mundy quoted by R. K. Mukerji, *The Economic History of India, 1600-1800*, Allahabad, 1945, p. 117); (*E.F.* 1655-60, 66, for saltpetre;) and 120 mds. and 200 bales=800 mds. (*E.F.* 1655-60, 63).

⁵¹⁴ See Chapter III.

⁵¹⁵ Thevenot, 7.

⁵¹⁶ *Khattri* was the honorific title for the Hindu merchants of Agra.

⁵¹⁷ Manrique, II, 156.

⁵¹⁸ *Ibid.*

⁵¹⁹ *E.F.* 1651-54, 112.

⁵²⁰ *Delhi Akhbārāt, 1761-88*, p. 169; *Ahwāl*, 15; Sarkar, *Fall of the Mughal Empire*, III, 259.

⁵²¹ Pelsaert, 4; De Laet, 41.

⁵²² The existence of foreign merchants at Agra is also borne out by the extant inscriptions in the Christian cemetery where the older ones are in the Armenian characters while some of them are in the Portuguese characters, dating back to the 17th century. Keene, *Agra Handbook*, p. 3.

The *sarāfs* (shroffs of the European accounts) were really money changers.⁵²³ Emperor Akbar's numismatic measures gave great stimulus to their trade. The emperor insisted on maintaining the maximum degree of purity in the coins for which the services of the *sarāfs* were constantly required at the imperial mint.⁵²⁴ At that time a variety of coins including foreign ones were current in the bazars,⁵²⁵ and the emperor, in order to make things easier for the common man, had set them at liberty to make their payments to the state in whatever species of coins they pleased,⁵²⁶ a circumstance that kept the *sarāfs* profitably engaged in converting one form of currency into another. Again, they also had to look into the debasement of coins caused by wear in the process of circulation.⁵²⁷ The *sarāfs* also acted as money-lenders⁵²⁸ and bankers—making remittances of money and issuing letters of exchange.⁵²⁹ Their engagement in these multiple functions enabled them on the one hand to develop exceptional skill and expertness in their business dealings,⁵³⁰ and on the other to ramify from large trading centres to small villages.⁵³¹

With so many resources at their disposal, the *sarāfs* had undoubtedly become men of substantial means so that when emperor Aurangzeb tried to levy *jeziya* these were classed as rich, the first category of men having above (Rupees?) 10,000.⁵³² They had banking connections in all the important places in India, Persia and Aleppo, so that they could pass money to any of these places.⁵³³ The English and the Dutch factors, during their stay at Agra normally used to obtain remittances of their capital for investment from Surat in the forms of bills of exchange, which used to be cashed by these *sarāfs* after

⁵²³ Tavernier, I, 28. ⁵²⁴ A.A. I, 18.

⁵²⁵ Moreland, op. cit., 59. ⁵²⁶ A.A. I, 35.

⁵²⁷ Moreland, op. cit., 59.

⁵²⁸ Blockman, A.A. I, 18, n.; Pelsaert, 28.

⁵²⁹ Tavernier, I, 28.

⁵³⁰ A.A. I, 18; Tavernier, I, 29. He, in fact, makes an interesting remark about them. According to him the sharp Jew *saraf* in the Turkish empire "would scarcely apprentice to these changers." Also see Moreland, op. cit., p. 59.

⁵³¹ Tavernier, I, 28.

⁵³² Sarkar, *Aurangzeb*, III, 306.

⁵³³ Jourdain, 164.

charging their share of interest.⁵³⁴ Occasionally these factors even borrowed sums of money from the *sarāfs*.⁵³⁵

Next in order of importance were brokers who constituted an indispensable link in the chain of business organisation. They operated transactions on behalf of their principals. They were to be found at Agra in large numbers.⁵³⁶ They were usually engaged on Rupees ten to twenty a month.⁵³⁷ Senior brokers exhorted their juniors to take care of their business and, if possible, defraud rather than be defrauded.⁵³⁸ Dealing always with two parties,⁵³⁹ they could help themselves by charging commissions at both ends. Their position was, in this respect, rendered specially advantageous as they were entitled to receive advances meant for the other party from their own employer merchants.⁵⁴⁰

⁵³⁴ *E.F.* 1622-23 24; *E.F.* 1651-54, 80; *E.F.* 1642-45, 332-3; for outgoing bills see *E.F.* 1618-21, 236, 247-8, 253.

⁵³⁵ *E.F.* 1622-23, 284.

⁵³⁶ *E.F.* 1637-41, 13; *E.F.* 1646-50, 220, 276, 301.

One of the brokers, Sunder Das, accompanied P. Mundy up to Patna, Mundy, II, 93.

⁵³⁷ *E.F.* 1651-54, 112. ⁵³⁸ Tavernier, II, 32.

⁵³⁹ Tavernier, II, 32; *Fatāwa*, 286. ⁵⁴⁰ *Fatāwa*, 287.

CHAPTER II

CAPITAL CITIES (*Contd.*)

Industries : Every settled habitation attracts numerous craftsmen in order to meet its non-agricultural requirements. As and when this habitation assumes the size of a town or a city the variety and number of each kind of craftsmen register a corresponding rise, provided other factors remain the same. Thus the problem of transport, unless resolved locally, could alone restrict the growth of urban centres, unless their elementary requirements were assured locally. For example, it is hard to imagine any medieval town, large or small, depending for its building material, shoes, utensils and other metalware or wooden goods on external supply. Briefly, each urban centre of our period had to be self-sufficient for its basic non-agricultural requirements.

Thus the manufacture of articles of elementary human needs being universal,¹ we have not taken them into account. In the course of time, however, some of the industries at any point acquired greater prominence than the others, either in regard to their quality or volume of output or both, thereby achieving wider repute. Only these, the more famous ones, are to be discussed here. Paucity of materials, however, prevents us from any detailed study of the subject. A bare and perhaps inadequate outline has been pieced together here with the help of fragmentary and scanty data available in the sources. The following account may, therefore, be regarded as illustrative rather than exhaustive.

Among the principal industries of Delhi, cotton fabrics,² but more so the chintzes,³ head the list. The chintzes were well coloured, next in quality to those of Masulipatam only. These were produced in large quantities and in several qualities, with a wide range of prices to suit the pockets of high and low.⁴

¹ See Bernier's account of Delhi *Kārkhānas*, I, 258-9.

² Manrique, II, 180.

³ *ʿAjāʾib*, 181b; Manrique, II, 180; *E.F.*, 1637-41, 134.

⁴ *E.F.*, 1637-41, 134.

In fact, Delhi was reputed for its dyeing of cotton fabrics,⁵ specially the type of dyeing called tie-dyeing. Its famous quilts used to be dyed thus.⁶ The indigo industry too was in a flourishing state attracting merchants in large numbers.⁷ Good indigo used to be produced in quantity within the environs of the city, at the royal *shalimar* gardens near the village Haidargarh.⁸ Brass (copper⁹) utensils were made here in large numbers,¹⁰ and as may be gathered from later observations, the craftsmen had attained a high degree of proficiency in their manufacture.¹¹ A prosperous leather industry at Delhi is indicated by several circumstances, a multitude of shoemakers¹² and the existence of their wards,¹³ the Qarol Bagh area, inhabited by *chamārs* or local tanners,¹⁴ and the *kuppe wala mohalla* where Muslim tanners made leather jars.¹⁵ Though the evidence for the wards pertains to a much later period, these wards with their crafts had evidently come down from the preceding centuries.¹⁶ The *Khānam* bazar of Delhi was the centre for the manufacture of swords, shields, guns, palanquins and so forth.¹⁷ Delhi was also noted for its sugar which is attested to have been excellent.¹⁸

As regards the building industry at Delhi, some of the more well-known edifices constructed during the period when it was not the seat of government were the forts of *Dīn Panāh*,¹⁹ Salimgarh,²⁰ Humayun's tomb,²¹ and the tombs of *Maham Angah* and her son.²² Sheikh Farīd Bukhari whose serai at Delhi has been noted earlier, founded and built Faridabad.²³ Later on the tombs of Khan i Khanan and Mahabat Khan were also added on a grand scale.²⁴ After the restoration of the city as capital,

⁵ Manrique, II, 180.

⁶ 'Ajlā'ib, 181b. ⁷ Manrique, II, 180. ⁸ Thevenot, 68.

⁹ Punjab District Gazetteer, Vol. V.A. 1912, 146-7.

¹⁰ 'Ajlā'ib, 181b. ¹¹ Punjab, op. cit., 146-7.

¹² Bernier, I, 258-9; *Seirul Mutākherīn*, I, 263; Irvine, *Later Mughals*, II, 257.

¹³ *Seirul Mutākherīn*, I, 263; Irvine, op. cit., II, 257.

¹⁴ Punjab, op. cit., 149. ¹⁵ Ibid., 149-50. ¹⁶ Ibid., 150.

¹⁷ G. Md. Khan, 38b; Abdul Latif, *Rozonāmchah of 1857*, Delhi, 1958, p. 84.

¹⁸ Thevenot, 68; *Chamanistān*, 51. ¹⁹ A.A. II, 279, (J).

²⁰ A.A. I, 415; *Haqiqat*, 37a-b. ²¹ C.C. Brahman, 55b.

²² A.A. I, 324. ²³ A.A. I, 415.

²⁴ C.C. Brahman, 55b-56a.

the emperor Shah Jahan erected a series of magnificent monuments. The Red Fort was constructed at the cost of Rupees fifty lakhs and was completed in the course of eight years.²⁵ *Ustāds* Hāmid and Ahmad were the chief engineers entrusted with its construction.²⁶ Izzat Khan, Iahvardi Khan, and Makramat Khan were successively appointed to supervise the work.²⁷ Its walls were of red sandstone,²⁸ while the interior was built of white shining marble;²⁹ actually it is said to have been a kind of lime which when plastered and polished reflected images. Originally it was a white stone found in quarries near Idar in Gujarat. This stone was burnt and used as lime. The emperor had obtained it for his own use.³⁰ Jāma masjid built under the supervision of Sa'ad Ullah Khan, Fāzil Khan-Khan-i Saman, and Khalil Ullah Khan, took six years to be completed and cost an outlay of Rupees ten lakhs.³¹ The outer walls were, again, of red sandstone,³² while for the inner walls white marble slabs were used, the arches being of black marble.³³ Lime and cement were used to join them.³⁴ The *Fatehpuri*³⁵ and *Akbarabadi* masjids were built by the two royal consorts *Fatehpuri Mahal* and *Akbarabadi Mahal*. These were undertaken on an equally grand scale.³⁶ Besides, many other mosques, colleges,³⁷ mansions,³⁸ hammams,³⁹ hospitals⁴⁰ and shops were built outside the precincts of the Fort.⁴¹ Even after the death of Shah

²⁵ *Shāhjahān nāmah*, III, 32; Khairullah, 76a.

²⁶ *Shāhjahān nāmah*, III, 28; *Āsār*, II, 28.

²⁷ *Āsār*, II, 28-9.

²⁸ *Shāhjahān nāmah*, III, 32; Khairullah, 76a. The stone could have been obtained from Fatehpur Sikri or Gwalior as both were rich in quarries of red stone, see *A.A.* II, 191 and *A.A.* I, 224.

²⁹ Khairullah, 76b; A quarry of white marble occurred in the south of Nagore, *A.A.* II, 282, and Todd, 477.

³⁰ *Mitr'āt i Ahmadi*, I, 15.

³¹ *Shāhjahān nāmah*, III, 52; *Hadiqat*, 145b.

³² *Shāhjahān nāmah*, III, 52; *Haqiqat*, 37b; *Hadiqat*, 145b.

³³ *Shāhjahān nāmah*, III, 52; *Hadiqat*, 145b; also see W. Franklin, *Asiatic Researches*, vol. IV, pp. 420-21.

³⁴ *Hadiqat*, 145b. ³⁵ *Shāhjahān nāmah*, III, 48; *Āsār*, III, 70.

³⁶ *Shāhjahān nāmah*, III, 49; *Āsār*, III, 70.

³⁷ *Āsār*, III, 69; *Shāhjahān nāmah*, III, 54.

³⁸ *Shāhjahān nāmah*, III, 45. ³⁹ *Ibid.*, 47.

⁴⁰ *Ibid.*, 54; *Āsār*, III, 69.

⁴¹ *Shāhjahān nāmah*, III, 42-56; Khairullah, 77a; *Hadiqat*, 145b.

Jahan, new constructions at Delhi went on. The elegant Pearl Mosque or *Moti Masjid* entailed an expense of Rupees sixteen lakhs.⁴² It is built of black and white marble and is still in a good state of preservation. The eighteenth century also saw the construction of mosques,⁴³ *dargāhs*,⁴⁴ canals, tanks,⁴⁵ ghāts,⁴⁶ hammāms⁴⁷ and colleges⁴⁸ and so on, while Raja Jai Singh built the extant *Jantar Mantar* (Observatory) at Delhi.⁴⁹ Details of their construction relevant to us are unfortunately lacking in the sources.

The utility of these ostensibly expensive undertakings is obvious. The employment of a vast mass of material, skilled and unskilled labour has its own advantages. The aesthetic pleasure and sometimes the protective devices were in no way the least merits of these structures. In addition, most of these edifices served to house a mass of people within their premises, the basic purpose of buildings being to provide shelter to its inhabitants. Taking, for instance, the case of the Red Fort, the Imperial residence—this cost fifty lakhs and continues to provide accommodation to at least 5,000 men up to date, that is, for more than 300 years. Thus the annual accommodation charges per head would amount to Rupees eight, five annas or about twelve annas per month for each occupant. This substantial result of the initial outlay of an investment running up to fifty lakhs would certainly justify such undertakings.

The decoration and embellishment of places of worship is a universal practice; Muslims are in no way an exception to this general rule. Besides, these places are in the long run reverted to the general public and their use cannot be denied to

⁴² *Āsār*, III, 77.

⁴³ For example, *Roshan ud daulah masjid*, Irvine, *Later Mughals*, II, p. 267; *Āsār*, III, 90; for other mosques see *Āsār*, III, 88; *Rozenāmchah* by A. Latif, p. 62; Franklin, *A.R.*, IV, p. 423.

⁴⁴ As the *dargāh* of Shah Mardān, see *Āsār*, III, 88.

⁴⁵ Built, for instance, by Nadīmuddaulah in 1857, *Rozenāmchah* by A. Latif, p. 62.

⁴⁶ For example, the Nigambodh Ghats built in 1737, *Āsār*, III, 90.

⁴⁷ For example that of Ghāziuddin Khan, *Haqiqat*, 37b.

⁴⁸ See Irvine, op.cit., II, 267, for the college of Roshan ud daulah; Franklin, *A.R.*, IV, p. 419, for Ghaziuddin Khan's Madrasa near Ajmeri Gate.

⁴⁹ *Mir'āt*, 286.

a common Muslim. The rest of the structures such as colleges, hospitals, serais, were evidently meant for the general public; the founders here were governed by humanitarian motives only. As regards mausoleums, these embody partly a religious sanctity and partly a touch of the secular. But the sheer beauty, sublime elegance, exquisite grace and artistic skill of these tombs erected amidst charming luxurious gardens are a source of constant pleasure, which offsets all the expenditure incurred in their creation.

The lesser nobility, merchants of moderate means and ordinary middle class inhabitants of the city built their houses of brick, stone and lime.⁵⁰ Clay was also used in them, as noted by Bernier⁵¹ and some decades earlier by Pelsaert.⁵² It was more conducive to coolness and effectiveness in warding off the heat of the blazing summer months of Upper India. After plastering the walls with lime they used unslaked lime, mixed with a thin paste of milk,⁵³ gum and sugar to rub the walls smooth with a trowel. Then it was again polished steadily with agates for about a day until it was hard and shone like alabaster or a mirror.⁵⁴

Stone could be obtained from the quarries in the environs of the city.⁵⁵ In fact, Monsetrate attributes the lofty and handsome residences of the inhabitants of Delhi to the proximity of these quarries.⁵⁶ Bricks were presumably obtained from the kilns⁵⁷ set up on the outskirts of the city as is done now. Lime was, of course, a necessary ingredient in the industry. It was used for whitewashing,⁵⁸ plastering and also for the purpose of joining bricks or stone slabs.⁵⁹ The requirement of lime was one *man* per *gaz* for whitewashing the ceiling, while ten seers per *gaz* was considered adequate for plastering the walls.⁶⁰ Lime

⁵⁰ *Commentary*, 97; Khairullah, 76b; Bernier, I, 246; *Khulāsat*, 22.

⁵¹ Bernier, I, 246.

⁵² Pelsaert, 66; it was used in brick form.

⁵³ *Commentary*, 96; Terry's reference is rather vague, Foster, 311.

⁵⁴ Pelsaert, 66-7; also see *Commentary*, 96.

⁵⁵ *Commentary*, 97. ⁵⁶ *Commentary*, 97.

⁵⁷ It has been deduced from Abul Fazl's statement that bricks are of 3 kinds, burnt, half burnt and unburnt. *A.A. I*, 223; for the durability of the kiln burnt bricks, see Brown & Dey, *India's Mineral Wealth*, Oxford, 1955, p. 317.

⁵⁸ *A.A. I*, 226; Terry, Foster, 311. ⁵⁹ See *A.A. I*, 226.

⁶⁰ *A.A. I*, 226.

was also needed for the preparation of mortar used for floors and roofs.⁶¹ Its frequent use in construction was rendered much more convenient by the occurrence of limestone in the quarries in the neighbourhood of the city.⁶²

The dwellings of the poor were built mainly of mud, bamboo and thatch.⁶³

Lahore : Numerous industries flourished at Lahore and skilled artisans in different kinds of crafts abounded.⁶⁴ The carpet weaving *kārkhānas* produced⁶⁵ silken, woollen⁶⁶ and cotton⁶⁷ and mixed goods which were both plain and flowered.⁶⁸ The bordered woollen carpets were specially famous as these were regarded superior in texture to the woollen material known as *saqarlāt i Firingi*.⁶⁹ The English factors occasionally invested in the Lahore carpets.⁷⁰ There were as many as 1000 *kārkhānas* for shawl weaving, an industry especially encouraged by the emperor Akbar.⁷¹ The *miyan* variety of shawl had an admixture of silk in it ;⁷² as a matter of fact, it was not a regular shawl at all because it was used for *cheerāhs* (turbans) and *foṭahs*⁷³ (girdles). Coarse varieties of woollen goods were also produced,⁷⁴ and twenty kinds of Lahore woollen stuffs were on sale in the Agra market.⁷⁵ The silk industry seems to have been in a flourishing state here as it turned out brocades,⁷⁶ and velvets which, again, were on sale in the Agra market.⁷⁷ Indeed, the industry seems to have been so firmly rooted that it survived the 18th century anarchy as may be inferred from its imports of raw silk from Bengal after 1765.⁷⁸ Amongst the cotton goods,

⁶¹ Terry, Foster, 311. ⁶² Commentary, 97.

⁶³ Bernier, I, 246 ; Irvins, op. cit., II, 292 ; Sarkar, *Fall of the Mughal Empire*, I, 253, 529, 530 ; for a Delhi thatcher, Irvine, op. cit., 263.

⁶⁴ *Haft Aqlīm*, I, 146 ; C.C. Brahman, 58b ; *'Ajā'ib*, 182a ; *Bahjat*, 63.

⁶⁵ A.A. I, 55. ⁶⁶ *'Ajā'ib*, 182b.

⁶⁷ Manucci, II, 424. ⁶⁸ Manucci, II, 424.

⁶⁹ *'Ajā'ib*, 182b.

⁷⁰ A.A. I, 92. ⁷¹ A.A. I, 91-2. ⁷² A.A. I, 92.

⁷³ Ibid.

⁷⁴ Manucci, II, 242 ; coarse blankets called *glims* made of the tail of a kind of a sheep are stated to be its chief manufacture in the 18th century, Griffiths, *Early European Accounts*, p. 93.

⁷⁵ A.A. I, 95-6.

⁷⁶ Ibid., 92. It says brocaded velvet and heads it under Gold Stuffs.

⁷⁷ Ibid., 93. ⁷⁸ See Lahore Commerce.

ormesins,⁷⁹ aljahs,⁸⁰ embroidered goods⁸¹ and painted stuffs⁸² were specialities of Lahore. In addition, bows and arrows, swords, saddles, and shoes were produced here in large quantities.⁸³ Ships⁸⁴ and boats⁸⁵ too were built here. The production of indigo has been noted above. The Lahore sugar "which was best in all Hindustan,"⁸⁶ along with the valuable sugarcandy, was produced in large quantities.⁸⁷ Of its buildings we know that 'Ali Mardān Khan's canal cost Rupees two and a half lakhs to the Imperial Treasury.⁸⁸ Aurangzeb's mosque on the bank of the Ravi called *Shāhi Masjid*,⁸⁹ was completed at an expense of Rupees eight lakhs.⁹⁰ But the emperor's Embankment was an enterprise of a higher order; it took forty years to be completed.⁹¹

Agra manufacturers too turned out a variety of goods.⁹² Amongst the textiles, carpets occupy the most prominent place,⁹³ though cotton goods too were produced.⁹⁴ Silken stuffs,⁹⁵ and very fine cloth of gold and silver were woven for turbans, lace or "other adornments for women."⁹⁶ This evidence of Manucci coupled with the existence of a *kanāri bazar*⁹⁷ at Agra would

⁷⁹ Pelsaert, 9; Brown, *India Tracts*, IX; white cotton goods were being produced even in the 18th century, Griffiths, *Early European Accounts*, p. 93.

⁸⁰ Manucci, II, 424.

⁸¹ Thevenot, 85; Manucci, II, 424.

⁸² Thevenot, 85.

⁸³ Manucci, II, 424; for bows and arrows also see *Bahjat*, 64.

⁸⁴ *A.A.* I, 280. These ships when ready used to be sent to the coast, *ibid.*

⁸⁵ Manucci, II, 424; *Ibratnāmāh* specifies *cheel*, *dayār*, *bayār*, *chunār* and *dhatār* timber as being used for the purpose, see *Ibratnāmāh*, I, 44.

⁸⁶ Thevenot, 85; for abundance of sugar, see Pelsaert, 31; *E.F.*, 1637-41, 134; *Khulāsāt*, 110.

⁸⁷ *E.F.*, 1637-41, 134.

⁸⁸ *Hadiqat*, 147. ⁸⁹ *Md. Baqar*, 308. ⁹⁰ *Khulāsāt*, 81.

⁹¹ *Ibid.*, 80.

⁹² *Commentary*, 36; *Tuzuk*, I, 7; *Khulāsāt*, 23; *Bahjat*, 69; *Hadiqat*, 161; *Haqiqat*, 42a.

⁹³ *A.A.* I, 55. ⁹⁴ *Manucci*, II, 424; *Hadiqat*, 161.

⁹⁵ *Bahjat*, 69; he says these were exported.

⁹⁶ *Manucci*, II, 424; *Khulāsāt*, 23; *Hadiqat*, 161; *Haqiqat*, 42a.

⁹⁷ *Kanāri* is the vernacular for silver and gold lace. For *zardozi* and *kalābattu* work at Agra see *Hadiqat*, 161. For *Kanāri Bazar* see *Ahwāl*, 55.

indicate that silver and gold laces were being extensively manufactured here. Raw silk for the silken goods was being imported both from Bengal via Patna and from Persia via the Gujarat ports.⁹⁸ As in Lahore, here too this import of raw silk from Bengal continued, though presumably much reduced in volume, till the end of the 18th century.⁹⁹ From this one may infer, as in the case of Lahore, the survival of a part of the industry till the very end of our period. Quilts, too, are reported to have been made here and these were frequently in demand for export.¹⁰⁰ Agra was also celebrated for its dyestuffs.¹⁰¹ White sugar was abundantly produced in and around Agra.¹⁰² Agra was also noted for the extraction of rose essence and perfumes.¹⁰³

Stone-cutting was a developed and popular art in and around Agra.¹⁰⁴ For the construction of his buildings, Babar had employed daily 1,491 stone-cutters;¹⁰⁵ six hundred of them were from Agra alone,¹⁰⁶ the remaining 891 belonged to Sikri, Biana, Dholpur, Gwalior and Koil.¹⁰⁷ The stone-cutters engaged in chiselling the red sandstone of Fatehpur Sikri worked with such expert adroitness that "their works vie with the picture book of Māni."¹⁰⁸ V. Smith observed, "The skill of the stone-cutters may be said to have attained perfection. Gigantic shafts of hard sandstone 30 or 40 feet in length were dressed and proportioned with the utmost nicety receiving a polish which no modern mason knows how to impart to the material. Enormous surfaces of the hardest gneiss were burnished like mirrors, bricks of huge dimensions were successfully fixed and the joints of the masonry

⁹⁸ Moreland, op. cit., 174. ⁹⁹ See Agra Commerce.

¹⁰⁰ E.F., 1618-21, 46, 108, 161, 178, etc. ¹⁰¹ E.F., 1618-21, 261.

¹⁰² E.F., 1618-21, 261; *Chamanistān*, 51; also see below the section on Sugar Industry.

¹⁰³ *Hadiqat*, 161; Abul Fazl and Jahangir say sweet scented oils, A.A. II, 190; *Tuzuk*, I, p. 6.

¹⁰⁴ Evidently it was owing to their skill in the craft that Mahmood Ghaznavi and later Timur carried away some stone-cutters to their respective capitals of Ghaznah and Samarqand; see *Life and Conditions of the People of Hindustan* by K. M. Ashraf, Delhi, 1959, p. 211, and *Bābarnāmah*, I, 78-9. For the Indian craftsmen employed in the construction of the Grand Mosque of Khalifa Al-Walid (705-715 A.D.) at Damascus, see Hitti, *History of the Arabs*, London, 1949, p. 265.

¹⁰⁵ *Bābarnāmah*, II, 244.

¹⁰⁶ Ibid., 243.

¹⁰⁷ Ibid., 244.

¹⁰⁸ A.A. I, 233; Māni was the great painter of the Sasanids who ruled over Persia from 226 A.D.—641 A.D.

were fitted with extreme accuracy.¹⁰⁹ The art was of two types, *manūbat kāri* and *Pachchi kāri*, or lattice work and mosaic.¹¹⁰

During the early part of our period Agra saw much of building work,¹¹¹ undoubtedly on account of its rather recent foundation and multiplication of the population. Emperor Akbar's fort contained more than five hundred buildings of masonry.¹¹² It was of red chiselled stone,¹¹³ and was completed after seven years of continuous work under Qāsim Khan,¹¹⁴ at the cost of Rupees thirty five lakhs.¹¹⁵ The most extraordinary feature of this fort was that no lime was used to fix the stone slabs together;¹¹⁶ iron rings chained together were used instead, in order to ensure greater durability.¹¹⁷ Gradually, other mansions of the princes and the grandees of the Empire rose along the bank of the Jamna.¹¹⁸ Magnificent mausoleums too were built such as those of Emperor Akbar,¹¹⁹ Etamuddaulah¹²⁰ and, of course, the Taj Mahal.¹²¹ These were usually situated a little away from the main city, in the midst of beautiful, well laid-out and expansive gardens, furnished with enough resources of their own to be maintained up to date.

Abul Fazl has in his *Ā'in i Akbari* incorporated a list of the materials used in the industry. He has also noted the quality, the price, the usage and occasionally the source of each article mentioned.¹²²

Bazars: References to various kinds of bazars occur in the

¹⁰⁹ V. Smith, quoted by Brown and Dey, p. 308.

¹¹⁰ Keene, *Handbook of Agra*, 134.

¹¹¹ *Tuzuk*, I, 3.

¹¹² *A.A.*, II, 191.

¹¹³ *Ibid.*; *Tuzuk*, I, 3.

¹¹⁴ *A.N.*, II, 373. According to Jahangir it took 14 to 15 years, *Tuzuk*, I, 3; while the author of *Hadiqat* reduces it to 4 years, *Hadiqat*, 161.

¹¹⁵ *Tuzuk*, I, 3; *Haft Aqlim*, I, 159b; *Hadiqat*, 161.

¹¹⁶ *Commentary*, 35.

¹¹⁷ *Haft Aqlim*, I, 159b-160a; *Bahjat*, 69.

¹¹⁸ *C.C. Brahman*, 56b; Pelsaert, 2-3; *Ahwāl*, 36-48.

¹¹⁹ It was built at the cost of Rs. 1,500,000 in the course of 3 to 4 years at the order of Emperor Jahangir, *Tuzuk*, I, 152.

¹²⁰ *Archaeological Survey of India*, Mughal Colour Decoration of Agra, Allahabad, 1901, Part I, pp. lxxv-lxxvii.

¹²¹ *Shāhjahān nāma*, II, 380-85; *Mā'asirul Umeraḥ* by Shah Nawaz Khan, Calcutta, 1913, I, 295.

¹²² *A.A.*, I, 222-24.

contemporary literature relating to these cities. The main bazar, often known as *chauk*, occupied an extensive, central and prominent area of the city, or as Manrique defined it, "a square and open place in the centre of a town."¹²³ The more famous of these were the *Chāndani Chauk*,¹²⁴ and *Chauk of Sa'ad ullah Khan* in Delhi,¹²⁵ *chauks* of Agra¹²⁶ and Lahore.¹²⁷

The *Chāndani Chauk* of Delhi was originally known as Lahore Bazar.¹²⁸ In 1640 Princess Jahan Āra built this *chauk*;¹²⁹ it was octagonal in shape and measured 100 by 300 yards. Due north was a garden laid out and named after the same Princess, beyond which there was another bazar 460 yards long.¹³⁰ The *Fatehpuri masjid* lay at one end of the bazar. The other end of the *Chāndani Chauk* was dominated by the Lahori gate of the Red Fort, but in between lay another *chauk* measuring eighty square yards and encircling the *kotwāli chabutra*.¹³¹ The Faiz canal flowed through the whole course of *Chāndani Chauk*¹³² and the shops along the road on both sides were beautifully built.¹³³ The front parts of the shops facing the road had arches over which were the terraces for the sake of fresh air.¹³⁴ The road was wide, straight and quite long,¹³⁵ in total it presented a beautiful sight.¹³⁶ Up to 1856, the *chauk* retained its "splendid" wide street nearly a mile long planted with two rows of trees and with a canal.¹³⁷ This was, like other important constructions

¹²³ Manrique, II, 191, n.n. 3.

¹²⁴ Thevenot, note by Sen, p. 303, n.n. 26; *Chamanistān*, 42; Franklin, A.R. IV, p. 424.

¹²⁵ G. Md. Khan, 38a; Irvine, op. cit., II, 257.

¹²⁶ *Bahār i Sukhan*, 161a-b; *Ahwāl*, 40a; Irvine, op. cit., I, 17.

¹²⁷ Manrique, II, 191; Md. Baqar, *Lahore*, Lahore, 1952, quoting from Mufti Tājuddin's *Hālūt i Lahore*, on p. 303.

¹²⁸ *Āsār*, II, 51. ¹²⁹ Ibid.; *Shāhjahān nāmah*, III, 47.

¹³⁰ Thevenot has mentioned it on p. 60, and Sen identifies it with Faiz bazar, 303, n.n. 27.

¹³¹ *Āsār*, II, 51-2; *Shāhjahān nāmah*, III, 47.

¹³² Keene, quoting from Fergusson in *Delhi* on p. 14; *Shāhjahān nāmah*, III, 47.

¹³³ Bernier, I, 245; *Shāhjahān nāmah*, III, 46. ¹³⁴ Thevenot, 60.

¹³⁵ Ibid.; *Bahjat*, 68; Bernier says 25 to 30 picces in width, Bernier, I, 245.

¹³⁶ Thevenot, 60; Bernier, I, 246.

¹³⁷ Keene, quoting Fergusson who had visited Delhi before Mutiny, *Delhi and its Neighbourhood*, Calcutta, 1879, p. 14.

of the period, a well-planned and symmetrical market place.¹³⁸ Rich merchants plied their trade here, though some of the still richer ones lived in still better localities.¹³⁹

The *chauk* of Dara (Shikoh) founded by that Prince at Lahore was not comparable to the *Chāndani Chauk*. It lay "at a distance of a gun shot on the east of Shah Burj on Mochi gate. Dara Shukoh had built a grand *haveli* (mansion) for himself, a square bazar, with a beautiful crossing and a large and nice garden in between and a *katra* (market place) comprising many houses (buildings?). Hence it was named after Dara. During his lifetime the locality looked like a piece of paradise.¹⁴⁰ A *Manik Chauk* is also noticed at Lahore by the same author.¹⁴¹ We have no information relating to the *Chauk* bazar of Agra. The roads of both Delhi¹⁴² and Lahore¹⁴³ *Chauk* bazars were paved, a circumstance which must have greatly facilitated movement of the traffic.

The *nakhās* was a daily market place where cattle and slaves were sold,¹⁴⁴ both wholesale and retail. Delhi, by about the end of our period, had more than one *nakhās*, as Ghulam Mohammad Khan in his *Travels* refers to an old as well as a new one,¹⁴⁵ while the *Akhbārāt, en passant*, mention only one of them,¹⁴⁶ evidently the new one. Later on, yet another irregular *nakhās* seems to have grown up, at the eastern gate of the *Jamma masjid*, where every day in a corner pigeons and horses used to be sold. The crush of buyers was great indeed.¹⁴⁷ The *nakhās* of Agra used to be held every morning¹⁴⁸ when camels, horses, oxen, along with tents and cotton goods used to be sold.¹⁴⁹ This *nakhās* is definitely mentioned to have been housed in a covered

¹³⁸ Bernier, I, 246; *Shāhjahān nāmāh*, III, 46-7.

¹³⁹ Bernier, I, 245.

¹⁴⁰ Tājuddīn, quoted by Md. Baqar, p. 303.

¹⁴¹ Ibid.

¹⁴² G. Md. Khan, 37b; *Bahjat*, by implication means this as it says it is free from mud and mire that make the roads impassable during rains, p. 68.

¹⁴³ Md. Baqar, 294.

¹⁴⁴ Mundy, II, 189. He, however, does not include slaves.

¹⁴⁵ G. Md. Khan, 41a.

¹⁴⁶ *Akhbārāt*, 1751-52, 76; also see *Khulāsāt*, 5-6.

¹⁴⁷ *Āsār*, III, 68-9. ¹⁴⁸ Pelsaert, 4; Mundy, II, 189.

¹⁴⁹ Pelsaert, 4; De Laet, 40; *Ahwāl*, 55.

building called "*imārat i nakhās*".¹⁵⁰ Similarly, the *nakhās* of Lahore was held in a building¹⁵¹ belonging to the State with finely decorated gates with glazed tiles. Horses were sold here.¹⁵² There is, however, one instance of the sale of captive Sikhs as slaves in 1711.¹⁵³

Gunges were usually the grain markets.¹⁵⁴ At Delhi Pahārgunj is included amongst the *mohallas* of the city¹⁵⁵ while Shadarah¹⁵⁶ and Fatehpuri¹⁵⁷ are represented as the principal grain markets of the city. At Agra *Mubarak Sultan gunj*,¹⁵⁸ *Dhoria gunj*¹⁵⁹ and *Fatehgunj*¹⁶⁰ are noted as the principal grain markets of the city. From *Ilm i Navisindiḡi* we gather that the Lahore Shahadrah also was acting as the principal grain market for the city inasmuch as the imported grain used to be checked and charged at this point.¹⁶¹

*Mandavis*¹⁶² were the markets of goods, usually provisions or grain. They were named after the chief commodity sold there or after their founders. Thus the *sabzi mandi* of Delhi was the chief market for fruits and vegetables.¹⁶³ The *Hajjām*¹⁶⁴ *mandavi* of Agra was situated near the *Top Khana* or the manufactory of guns and was the bazar for arms and ammunitions.¹⁶⁵ The *Rajah mandi* of Agra was large enough to enclose a temple—Sadashiva Jina—within its precincts.¹⁶⁶ Similarly *Fatehgunj bazar* was situated within the *Shāhzādīs mandi*.¹⁶⁷ At Lahore, reference is made to a *mandavi i namak* or salt market.¹⁶⁸

¹⁵⁰ *Ahwāl*, 55.

¹⁵¹ *Akhbārāt*, 1751-52, p. 76; Md. Baqar, 304.

¹⁵² Md. Baqar, 304. ¹⁵³ Irvine, op. cit., I, 119.

¹⁵⁴ Bolts, p. xix.

Hocy says it is generally a private property, see his *Trade*, p. 205.

¹⁵⁵ G. Md. Khan, 39b. ¹⁵⁶ *Seirul Mutākherīn*, IV, 31.

¹⁵⁷ G. Md. Khan, 41b. ¹⁵⁸ *Ahwāl*, 42. ¹⁵⁹ *Ibid.*, 55.

¹⁶⁰ *Ibid.*, 56. ¹⁶¹ *Ilm i Navisindiḡi*, 90a, 90b, 91a, 91b.

¹⁶² For Sultan Alaaddin's *ghalla manda* or grain market see Barani, 304-10. *Supplement of Mīrāt i Ahmadi* also explains the term as a place where commodities and corn were brought from outside for sale in the city, p. 516.

¹⁶³ G. Md. Khan, 39b. Bernier does not name the place though he mentions it as seen elsewhere.

¹⁶⁴ Hajjām was one of the eunuchs of emperor Akbar, *Ahwāl*, 53.

¹⁶⁵ *Ahwāl*, 53. ¹⁶⁶ *Ahwāl*, 59.

¹⁶⁷ *Ibid.*, 56. ¹⁶⁸ Irvine, op. cit., I, 317.

Prince Parvez had founded a *mandi* at Lahore,¹⁶⁹ but the goods in which it chiefly dealt are not mentioned.

A *katra* was an enclosed market,¹⁷⁰ and like a *mandi*, might be named either after some article sold there or its founder. Many *katras* occur in the sources. At Delhi a *nīl katra*¹⁷¹ (indigo), *kashmīrī katra*,¹⁷² and *katra* Fida'ī Khan¹⁷³ are referred to. At Lahore there was a *katra* situated within the *chauk* of Dara Shikoh comprising many houses.¹⁷⁴ Agra seems to have been full of *katras*, such as *sābun katra*¹⁷⁵ (soap), *katra* of Agha Baqar,¹⁷⁶ *katra* of I'tebār Khan,¹⁷⁷ *katra* of Shaista Khan¹⁷⁸ and *katra* of Mardān Khan.¹⁷⁹ The commodities sold in these *katras* are not stated, though we may infer that the *sābun katra* dealt mainly in soap. The *katra* of Wazir Khan,¹⁸⁰ however, was the bazar for the merchants dealing in goods that arrived by river at Agra.¹⁸¹

There were still other bazars, bearing again either the names of the commodities in which they mainly traded or representing their founders. Thus in Delhi were *khās bazar*,¹⁸² *Khānam bazar*,¹⁸³ *chāori bazar*,¹⁸⁴ *Jawhari bazar*¹⁸⁵ and *Rāja bazar*.¹⁸⁶ The Faiz Bazar, measuring 1500 yards in length and 30 yards in width, had stone and brick shops built on either side and the Faiz canal gracefully flowed through its entire length. It was built in 1650 by Akbarābādī Mahal (one of the consorts of the emperor Shah Jahan); therefore, it was also called Akbarabadi Bazar.¹⁸⁷

Similarly, Secandara Bazar at Agra was the chief grain market. Provisions and grain reaching Agra from the east by river were disembarked at this point. The Customs Houses for checking and charging the goods as well as the houses of the grain dealers were all situated at a convenient distance from this point.¹⁸⁸ A

¹⁶⁹ Md. Baqar, 305.

¹⁷⁰ Irvine, op. cit., I, 126. ¹⁷¹ G. Md. Khan, 39a.

¹⁷² Ibid., 38a. ¹⁷³ Khairullah, 77a. ¹⁷⁴ Md. Baqar, 303.

¹⁷⁵ *Ahwāl*, 55. ¹⁷⁶ Ibid.

¹⁷⁷ Ibid., 53. ¹⁷⁸ Hodges, *Travels*, 113-4.

¹⁷⁹ *Ahwāl*, 55. ¹⁸⁰ *Akhbārāt*, 1751-52, 49; *Ahwāl*, 47.

¹⁸¹ *Akhbārāt*, 1751-52, 49.

¹⁸² G. Md. Khan, 38a; *Shāhjahān nāmāh*, III, 46.

¹⁸³ Ibid., 38b; *Rozenāmchah*, A. Latif, p. 84.

¹⁸⁴ G. Md. Khan, 38a; *Persian Correspondence*, VII, p. 408.

¹⁸⁵ G. Md. Khan, 39b. ¹⁸⁶ Ibid., 40b.

¹⁸⁷ *Āsār*, II, 52. ¹⁸⁸ Pelsaert, 4; De Lact, 41.

later writer mentions Shahadra as serving the same purpose.¹⁸⁹ In addition, *mīna bazar*,¹⁹⁰ *kanāri bazar*, *kashmīrī bazar* and *naicha bandān bazar*¹⁹¹ are also reported at Agra.

At Lahore many bazars occur, such as *Lakhi bazar*,¹⁹² *Tibbi bazar*,¹⁹³ *Begampura bazar*,¹⁹⁴ and the bazars of Prince Parves¹⁹⁵ and those of the *Rarra* quarter.¹⁹⁶ Evidently these are only a few of the most eminent ones; the actual number of bazars in each city must have run into hundreds.¹⁹⁷ Thus, for instance, Ghulam Mohammad Khan in his brief survey of the city of Delhi mentions more than two dozen bazars of lesser significance,¹⁹⁸ the total number must have exceeded this figure. Or, at Agra, the compound of the *haveli* (mansion) of Asaf Khan (Jahangir's wazir) is said to have enclosed not less than fifty two *chauks*,¹⁹⁹ or market places.

And yet at Delhi, we are informed that the business was so brisk and the rush so great that the week-days proved inadequate to the general public. Consequently, a Friday bazar²⁰⁰ was started in the forenoon, before the Friday prayer in front of the gate *Masjid i Akbari Mahal*. It dealt chiefly in "books, verses, letter writing and paintings, so that the whole scene presented a peculiar spectacle."²⁰¹

By the end of the 17th century, a new feature is noticeable at Delhi. The *Chūr Chaman i Brahman* mentions *qahwah khānas* in

¹⁸⁹ Manik Chand in his *Ahwāl*, 44-5, 49. It is not possible to ascertain with the inadequate material available that (i) if Secandara had ceased to exist as grain market by the end of the 18th century, thereby providing a chance to Shahadra to grow as such or (ii) the latter was in addition to the former.

¹⁹⁰ *Ahwāl*, 39. ¹⁹¹ *Ibid.*, 55.

¹⁹² Md. Baqar, 303.

¹⁹³ *Ibid.*, 293; it might denote the existence of a medical college in the locality.

¹⁹⁴ Md. Baqar, 304. ¹⁹⁵ Md. Baqar, 304. ¹⁹⁶ *Ibid.*, 293.

¹⁹⁷ As Hoey, op. cit., succinctly remarked about Lucknow, a much smaller town, that "to trace the names of the original 52 *mandis* and 53 bazars of Lucknow would be to write the history of the Lucknow city," p. 210.

¹⁹⁸ G. Md. Khan, 38a. ¹⁹⁹ *Ahwāl*, 41.

²⁰⁰ "Any business before Friday prayers is forbidden," *Mī'rat*, 179.

²⁰¹ *Mī'rat*, 179; for some of the other informal bazars that grew up on the steps of the E., N. and S. gates of Jāma Masjid, see *Āsār*, III, 67, 68 and 69.

its bazars but gives no details.²⁰² Anand Ram Mukhlis, however, informs us that there were about two or three *qahwah khānas* in the *Chāndani Chauk*, where some of the gifted poets used to assemble in the evenings. On small cups of *qahwah* they used to recite their pieces. In his youth, the author also used to visit these *qahwah khānas* in company with some of his close friends. It became a general practice first to walk about the *chauk*, then gather in the *qahwah khānas* and enjoy oneself in the congenial atmosphere of cups of *qahwah* with close friends. The system was borrowed from Persia where great refinement and elegance was observed in such gatherings. The author concludes his description with the observation that *qahwah* is a much better beverage than wine for, though weaker in taste, it leaves no hangover.²⁰³

Though goods of all kinds seem to have been amply stocked in these infinite numbers of bazars, the method of their display was not equally impressive. In fact, there appears to be a divergence of views relating to this aspect of bazars. While indigenous writers fondly admire the general layout and mode of arranging shops in Delhi,²⁰⁴ Bernier, for one, was positively disappointed. He found that the Delhi shopkeepers lacked all sense of exhibiting their wares to the best advantage, with the solitary exception of the fruit market—*sabzi mandi*—where the goods were attractively displayed.²⁰⁵ Evidently this divergence in views between the local writers and the French visitor may be accounted for by the difference in their respective backgrounds.

The evidence relating to the Lahore bazar is of a different character. The streets were neat and clean, the atmosphere quiet and peaceful and the shopkeepers sure of security from thieves and hooligans.²⁰⁶ No mention is made of the Agra bazar except that it was congested as seen above.

Inns: The construction of inns or sarais, like other works of public welfare, devolved on both the state²⁰⁷ and private men of

²⁰² C. C. Brahman, 52b; Emperor Aurangzeb wrote that Ali Mardan Khan, Abu Said Mirza, and Qalich Khan first entertain the soldiers of the Chauki with *qahwah* every day, *Ruq'at i 'Ālamgiri*, p. 39.

²⁰³ *Chamanistān*, 42.

²⁰⁴ *Hāji Khairullah*, 76a-77a; *Shāhjahān nāmāh*, III, 46.

²⁰⁵ Bernier, I, 248. ²⁰⁶ Manrique, II, 188-9.

²⁰⁷ *A.A.* I, 222; *A.A.* II, 39; *Tuzruk*, I, 8; Aurangzeb's Farman to

means.²⁰⁸ Some of these inns were spacious buildings in the midst of laid out gardens where 2,000 to 3,000 men with 500 horses could be accommodated.²⁰⁹ Generally serais used to be furnished with lodgings, mosques, wells and separate board for Muslims and Hindus.²¹⁰ All the highways were dotted with serais²¹¹ which afforded security to the wayfarers as the staff, when not directly appointed by government, seems to have been answerable to it.²¹²

The cities too had their own numerous serais where the strangers could find safety and accommodation at very low rates. The lodgers used to be looked after by women employees, called^{212a} "*bhatyārāns*."²¹³ Two to four lodgers were to be attended by each of the *bhatyārāns*—female attendants—who cooked their servants' (?) meals and provided them with cots, the travellers in turn paying them one to two pice in the morning,²¹⁴ presumably as tip.

The existence of numerous serais in each of our cities is attested to by our sources. In fact, the names of some of the eminent ones have been handed down. For example, we have mention of the serais of Rūhullah Khan,²¹⁵ Qazi Khan,²¹⁶ Farid Bukhari,²¹⁷ and that of Khawājah²¹⁸ at Delhi. The serai of Jahan Ara Begam²¹⁹ was demolished soon after 1857.²²⁰ The 'Arbān serai was built in 1560 by Haji Begam and could accommodate a minimum number

Md. Hashim, tr. Sarkar, *J.A.S.B.*, June 1906, p. 231; Abbas Sherwani, *E. & D.*, IV, p. 417; P. Saran, p. 410.

²⁰⁸ For some of the serais built by private men of means, Nur Jahan's serais, Pelsaert 50; Munim Khan ki sarai (Munim Khan was the minister of emperor Bahadur Shah), W. Irvine, *Later Mughals*, 125-6.

²⁰⁹ *Nur Mahal ki serai*, Mundy, II, 78.

²¹⁰ Forster's *Travels*, I, 73-5; Bernier, I, 233; *Tabqāt*, II, 175.

²¹¹ Manucci, I, 68; Roe, *Embassy*, I, 90 n.; for state controlled serais see *Tabaqāt*, II, 175.

²¹² Manucci, I, 71.

^{212a} N. Withington, Foster, p. 225. ²¹³ Mundy, II, 121.

²¹⁴ *Ibid.*

²¹⁵ *Travels of Sh. Rahim 'Alī*, 41a-42b.

²¹⁶ *Seirul Mutākherīn*, I, 292.

²¹⁷ *A.A.* I, I, 415. Later on it was used as jail by the English (n. by Blockman) which clearly shows the vast accommodation afforded by the building.

²¹⁸ Sarkar, *Fall of the Mughal Empire*, II, 252.

²¹⁹ Bernier, I, 280-1; Thevenot, 60.

²²⁰ Sen, *Travels of Thevenot*, 303.

of 300 people.²²¹ But the names of a number of other serais at Delhi are not known. Similarly the serais at Lahore are no longer extant or remembered, with the exception of *Khan i Khānan ki serai*, situated at a distance of eight *karohs* from the city towards Agra. It was built by Abdur Rahim Khan i Khānan.²²²

We are better informed about the serais of Agra. Manrique had lodged at the Armenian serai in 1641. He also noticed that there were ninety serais in the city and they were always full.²²³ According to Thevenot, these serais, "more than three score" in the city, were so elegantly built as to be ranked after the lesser palaces of the *umerah*. Some of them had six large courts with their own gates leading into commodious apartments where strangers such as merchants had their lodgings.²²⁴ Serais such as *Akbari serai*,²²⁵ *Bhore ki serai*,²²⁶ *Jalal Khan ki serai*, *P'tebār Khan ki serai*²²⁷ are mentioned by their names in the *Ahwāl i Shaher i Akbarābād*. Thus, as Jourdain²²⁸ and Bernier²²⁹ bear out, Agra seems to have surpassed Delhi in the number and quality of its serais.

Population: A glance at the Persian sources convinces us that census figures of the *parganas*, *qasbahs*, towns and cities were maintained by the Mughal State in some form or other.²³⁰ To quote one example here, *Tabaqāt i Akbari* records that there were 120 big cities and 3200 *qasbahs* (townships) in Emperor Akbar's dominion,²³¹ a conclusion which could not have been arrived at without some kind of census figure at hand. But unfortunately no population figures in any of the known Persian authorities are mentioned. In c. 1600, Father Xavier had,²³² however, estimated the population of Agra at five hundred thousand souls, while in 1640, Manrique found it reaching up to "six hundred and sixty thousand excluding the foreigners who after filling ninety caravanserais spread out into private

²²¹ *Āsār*, III, 54. ²²² *Maā'sar i Rahimī*, II, 609.

²²³ Manrique, II, 152. ²²⁴ Thevenot, 48.

²²⁵ *Ahwāl*, 55. ²²⁶ *Op. cit.*, 53. ²²⁷ *Op. cit.*, 51.

²²⁸ Jourdain, 164. ²²⁹ Bernier, I, 284.

²³⁰ For example, see the Instructions to the Kotwāl, *A.A.* II, 43.

²³¹ *Tabaqāt i Akbari*, III, 545-6; (Persian ed., Calcutta, 1936).

²³² Eulogy of Fr. J. Xavier, S. J. a Missionary in Mogor (1549-1617), tr. by H. Hoston, S. J., *J.A.S.B.*, New Series Vol. XXIII, 1927, No. 1 p. 121.

houses.”²³³ It would have been useful if our visitors had also mentioned the source of their information. At any rate, this vital evidence definitely places the size of the first grade cities of the Mughal India and reflects “. . . a very high ratio of urban to the total population of the country . . .”²³⁴ Delhi and Lahore could not have lagged far behind; Lahore has, in fact, at times been considered bigger than Agra.²³⁵

Composition of Population : Throughout our period of 250 years we have no figures available relating to any section of the urban population. Under the circumstances, we have to assess the composition of these cities on the basis of the scanty descriptive evidence yielded by our sources.

The emperor's household, camp and karkhanas were stationed in either of the capital towns, Agra, Delhi or Lahore. The legion of servants employed at Agra in c. 1595 were paid the aggregate amount of Rupees 77,29,669/- during the year. This excludes those who were enrolled on the army list as some of them are reported to have been.²³⁶ This non-military staff was composed of more than one hundred *khazānchis* in charge of various departments,²³⁷ assayers of precious metals,²³⁸ and hundreds of *munshis* or clerks to record the various items.²³⁹ The staff of the mint department consisted of *daroghas*,²⁴⁰ melters of ore²⁴¹ as well as those of refined metal,²⁴² plate makers, *amīns*, merchants, weighmen, *zarrābs*, engravers,²⁴³ and seven other *posts*.²⁴⁴ Then there were employees in the illumination department,²⁴⁵ *abdārkhana*,²⁴⁶ kitchen (which was placed under

²³³ Manrique, II, 152.

²³⁴ Irfan Habib, *The Agrarian System of Mughal India*, Asia Publishers, Aligarh University, 1963, p. 76. Also see his n. n. 10, pp. 76-7. He infers that “it is unlikely that this ratio was exceeded till very recent times,” p. 76.

²³⁵ Coryat, *Fosters*, 243. ²³⁶ A.A. I, 12.

²³⁷ Ibid., 12, 13, 14, 15 and 20.

²³⁸ Ibid., 18. Abul Fazl calls them *sairafis*.

²³⁹ Ibid., 14, 15, 113, 138, 155, 170.

²⁴⁰ Ibid., 14, 15, 113.

²⁴¹ Ibid., 20.

²⁴² Ibid., 21.

²⁴³ Ibid., 21-2, 54-5. Thevenot mentions some engravers at Delhi, see p. 65.

²⁴⁴ A.A. I, 18-27. These seven posts were of *Sikkachi*, *Qurskub*, *Chāshnigir*, *Paniwar*, *Paikar*, *Nichoiwāla* and *Khākshoy*.

²⁴⁵ A.A. I, 51.

²⁴⁶ Ibid., 57-8.

a *mīr i Bakāwal* or head *chef*),²⁴⁷ water carriers, table servants, servants in the pantry, mace bearers,²⁴⁸ and the attendants in the fruiterie.²⁴⁹ In addition, there were musicians,²⁵⁰ copyists,²⁵¹ translators,²⁵² and readers²⁵³ amongst the imperial staff. The painters were required to exhibit their pieces weekly and they were allowed monthly salaries.²⁵⁴ Artists for ornamental decoration, gilders, line drawers, and pagers too had regular salaries.²⁵⁵ Also enrolled amongst the civil employees of the imperial establishment were the *qur bardārs*, fast runners,²⁵⁶ gunners (divided in nine grades),²⁵⁷ and men in the elephant,²⁵⁸ camel,²⁵⁹ horse²⁶⁰ and cow stables.²⁶¹ Each of the 500 separate harems had numerous female attendants, *munshis*, *daroghās*, eunuchs and several sets of guards.²⁶²

The executive and military functions of the state were combined in a single service. A *mansabdar* could be allotted either or both of these functions.²⁶³ Consequently most of the civil and military posts involved the obligatory maintenance of troops and such officers in the imperial hierarchy had a sizable group of men under their command.²⁶⁴ Thus, the court could be attended by "above 35,000 horse, 10 or 12 thousand foot," apart from the undesirable elements which the courts and amirs commonly draw after them.²⁶⁵

The eminent *umerahs* following the imperial pattern maintained large establishments of their own, besides the contingents of troops that they were required to keep by virtue of the *mansab* they held. Thus though their number could not exceed a few dozens at any given time in any of these cities, their stay implied the stay of the vast multitude of their retinue and dependants.²⁶⁶

²⁴⁷ Ibid., 59. ²⁴⁸ Ibid., 61, 116. ²⁴⁹ Ibid., 69.

²⁵⁰ These were of various kinds, Ibid., 52. ²⁵¹ Ibid., 106-109.

²⁵² Ibid., 110-3. ²⁵³ Ibid., 110.

²⁵⁴ Ibid., 113. ²⁵⁵ Ibid., 115.

²⁵⁶ Ibid., 116. ²⁵⁷ Ibid., 123.

²⁵⁸ Ibid., 132-38. ²⁵⁹ Ibid., 155.

²⁶⁰ Ibid., 145-147. ²⁶¹ Ibid., 159. ²⁶² A.A. I, 46-7.

²⁶³ Abdul Aziz, *The mansabdāri System and the Mughal Army*, Lahore, 1945, pp. 1-2.

²⁶⁴ A.A. I, 238; Abdul Aziz, op. cit., 11-12.

²⁶⁵ Thevenot, 60.

²⁶⁶ Ibid., 60-61; Abdul Aziz, op. cit., 153.

For example, if there were twenty five amirs stationed at Agra in 1606, with an average rank of 1,000 troops and another 1,000 men as retainers and domestic servants for each of them, then the total number of men present in the city mounts up to 50,000. In fact, these amirs may be compared with the modern private firms or institutions in regard to their employment of staff but offering less security of service. With the fall of Bairam Khan²⁶⁷ or Dara Shukoh either in favour or field, their troops, retainers and sometimes even harems used to get dispersed.²⁶⁸ With the loss in the vigour of the empire this insecurity became more pronounced and frequent. However, as long as the Mughal system of services lasted, these umrah engaged and supported a host of dependents, who along with the imperial employees constituted the middle class and even lower middle class consumers of the city.

Amongst the same class may be grouped the intellectuals such as poets,²⁶⁹ historians, scholars, ecclesiastical divines, painters, teachers, calligraphists, news writers, physicians,²⁷⁰ *diwāns*, *munshis*, and so on. There were Medical Colleges, one at Sirihind,²⁷¹ where physicians were given training. They carried on private practice,²⁷² or their services were requisitioned by the nobility.²⁷³ *Munshis*, writers and account-keepers used to be far more frequently employed than is generally known;²⁷⁴ these seem to have been more elevated posts, their salaries depending on the status of their employers.²⁷⁵ In fact, by about

²⁶⁷ *Mā'asiul Umerah*, Vol. I, pp. 373, 375; *A.N.* II, 184.

²⁶⁸ Sarkar, *Aurangzeb*, II, 66, 114.

²⁶⁹ See Paper in Chapter IV.

²⁷⁰ See Jahangir's Ordinance, No. 10 in the *Tuzuk*, I, 9; for the implementation of this order see Saran, op.cit, 419-20.

²⁷¹ *Commentary*, 102. A medical college at Delhi was named *Dārush shefa*, see *Āsār*, III, 69. Another "*makān i Dārush shefa*" building of a hospital is mentioned at Agra in the *Ahwāl*, f. 40a.

²⁷² For a private physician at Delhi see *Mi'rat*, 341-342.

²⁷³ For *Hakims* at Akbar's Court, see *A.A.* I, 542-3. For those at Shah Jahan's Court, see *Shāhjahān nāma* III, pp. 393-7.

²⁷⁴ For the employment of news writers, see *A.A.* I, 258-9; *A. S. Khurshid* 37-8; for the account keepers, see 'Ilm i Navisindīgi, 66a; 72b-73b; see *Tarif i Muthra* by Munshi Harbans in *Tazkira i Nudrat* for the maintenance of daily roll of labourers and their wages in the course of construction of an important temple at Muthra, f. 75a.

²⁷⁵ No reference directly relating to these cities could be found except

the end of emperor Aurangzeb's reign, the number of trained accountants alone had become so large that they were fast losing their erstwhile dignity. It was mainly the *kāyastha* caste, the *khatris* among the Punjabis²⁷⁶ and Muslim *khojas* who used to take to this profession. Painters abounded and were in great demand at both the royal and lesser courts.²⁷⁷

In addition, there were all grades of merchants and traders, who, depending upon their circumstances, could be ranged as wealthy, middling or petty businessmen. In their train they had sarafs, treasurers, brokers, account-keepers and the like.²⁷⁸

Evidently it was the craftsmen and professionals who, unlike the fleeing nobility or fluid soldiery, constituted a permanent component of urban population. As long as the general condition of the cities flourished, the men of this class had no need to quit. And even when the general situation in the country deteriorated, they had more to gain by sticking to their habitat than by running away. Under the adverse circumstances of the 18th century, they would be the last to disperse. Several factors could hinder their movement out of the cities where their business had prospered, such as lack of connection in more peaceful areas, or absence of the possibility of reverting to their villages whence they had come originally. After generations of urban living, they could not go back to the drab restricted life of the village, even if they still had some meagre holdings there. Besides, with a relative prosperity in the past, they could always hope for the storm to subside and normal situation to be restored.

As these cities covered a wide range of industrial and commercial activities along with services required by all and sundry, the number of craftsmen and servicemen would tend to be the largest for any single set of people, or, in other words, they constituted the most sizable part of the city population. When not attached either to an amir²⁷⁹ or royal household, they lived

that Abul Fazl, acting as a royal *munshi* (amongst other responsibilities enjoyed mansab of 2,000, A.A. I, XVIII).

²⁷⁶ *Ilm i Navisindigī*, 65b-66a; Pelsaert, 78.

²⁷⁷ For the abundance of painters at Agra and Delhi, see Thevenot, 55, 65.

²⁷⁸ For a fuller account of this section of population, see Chapter I.

²⁷⁹ For the multitude of domestics in the household establishments of

mostly in their separate quarters. Names of some such quarters have come down to us; for example, at Agra, the *Lohā gali*²⁸⁰ (blacksmith's lane), the *cheenū tola*²⁸¹ (the sugar ward), the *kanāri bazar*,²⁸² *Sābun Katra*²⁸³ and *Nīl Para*,²⁸⁴ at Lahore, *Teli wara*²⁸⁵ (the ward of oil pressers) and the *Mochi gate*,²⁸⁶ and at Delhi, the cobblers' quarters,²⁸⁷ the *nīl katra*,²⁸⁸ and the Kashmiri *katra*.²⁸⁹

The ecclesiastical functionaries, though perhaps much smaller in number, constituted an integral element in the urban milieu of the times. Their services fulfilled the spiritual needs of their respective communities. Apart from the few engaged by private individuals—an amir or the king²⁹⁰—they were generally employed in mosques, monasteries, *madrasahs*, *dargāhs*, or tombs. Sometimes they did not care for remuneration and performed services, such as reciting *azaan*, the call to prayers, merely for the love of God. But more often they were paid from the trust property attached to each of them or directly from the State.²⁹¹ Besides, they also earned considerable amounts from the voluntary offerings of the people, a practice still common in Hindustan. Annual events at *dargāhs* and tombs attracted large concourses of people who brought gifts for the benefit of the employees. At Delhi, for instance, the *urs*—anniversary gatherings around venerated tombs—are still held with the same abandon and on the same pattern. The innumerable religious bathings and other such occasions of the Hindus were similarly so many veritable fairs, where devotion could be conveniently combined with pleasure and business.²⁹² Temples with their staff performing the usual Hindu rites and practices abounded; for

some of the eminent amirs of the empire, see their biographical sketches in the *Mā'asar Umerah*, Vols. I and II.

²⁸⁰ *Ahwāl*, 58. ²⁸¹ *Ibid.*, 54.

²⁸² *Ibid.*, 55. ²⁸³ *Ibid.*,

²⁸⁴ *Ibid.*, 39a. ²⁸⁵ *Md. Baqar*, 305.

²⁸⁶ *Ibid.*, 303. ²⁸⁷ *Irvine, Later Mughals*, II, 257.

²⁸⁸ *G. Md. Khan*, 41a. ²⁸⁹ *Ibid.*, 40a.

²⁹⁰ For example, the historian Mulla Abdul Qadir Badaoni was employed as the Imperial *Muazzin*, and the Court Imam for Wednesdays, *A.A. I*, 104, n.

²⁹¹ *A.A. I*, 268-70; *Tuzuk*, I, 10; *Sarkar, Mughal Administration*, 18.

²⁹² *Saran, op. cit.*, 417.

instance, at Agra more than a dozen temples are enumerated in the *Ahwāl i Shaher i Akbarābād*.²⁰³

Town Planning: Town planning on a large scale is a modern idea, but on a limited scale it was not entirely unfamiliar in the medieval times. Some pattern seems to have been there followed in the location of forts, mansions, mosques, hammams, gardens, bazars and other public buildings, and the principal wards of the city generally occupying sites according to their importance.²⁰⁴ For example, expansive gardens were never laid out in the middle of the city, as this would have rendered access from one side to the other exceedingly inconvenient in those days.

Cities were protected by walls built around them, while the forts were constructed to provide against the contingency of an invasion or a surprise attack. They usually possessed effective defence measures, had paved roads within convenient location of offices, *kārkhānas*, kitchen, quarters for the staff, adequate water supply and accommodation for long-term storage of other human needs. For a capital, a fort was an indispensable accompaniment and its construction was always a top priority. The forts of Agra and Lahore built by emperor Akbar envisaged all these facilities. The Red Fort of Delhi, too, was planned and built on the same lines as the other two, but being of later date it excelled them in grandeur.

The principal umerah, when not placed within the precincts of the forts, built their palaces or mansions as close to them as was possible. Next consideration was the proximity to a

²⁰³ *Ahwāl*, 39b, 58, 59.

²⁰⁴ A brief piece of interesting evidence is brought out by Mohammad Wali Ullah relating to the plan on which Farrukhabad was built in 1714 by Nawab Ahmad Khan Bangash. He relates, "The progeny of the rich and nobles received the border part of the town (for their residence). The sarafs, merchants and craftsmen have been placed in the centre of the town around which a thick and strong mud wall was built. Beautiful gardens have been laid out on all sides of the town. *Neem* trees yielding luxurious shade have been planted in the bazars and lanes. The town from outside looks like paradise and its handsome, tall trees are a heavenly gift granted to the inhabitants of the town. River Ganges flows at a distance of one *karoh* (kos) in the north. The town has a lofty fort around which mansions of some of the nobles have been erected..." *Tarikh i Farrukhabad*, Or. 1718, pp. 1, 2.

river, so that, with the passage of time, their mansions at Delhi²⁹⁵ and Agra ended up in miles long rows along the banks of the river Jamna, making the length of Agra entirely out of proportion with its width (6 kos by $\frac{1}{2}$ kos). As soon as the Embankment of Alamgir was completed at Lahore, all men of substance of Lahore built their residences along the river and the ward was known as *band i 'Alamgīrī*.²⁹⁶ There is no mention of any general bazar within this aristocratic area. Nor do we know if other buildings of public utility interspersed this residential part of the city. The view of the area, notwithstanding the class of occupants it represented, could not have been uniformly splendid. For these mansions, sprawling as they used to be, enclosed also the lodgings of their dependents and domestics, which were naturally not of the same order or style, but quite often made of mud and thatch.

Unlike that of Agra, the main bazar of Delhi, (Jahanabad or Shahjahanabad) reflects a well-planned undertaking. The neat and quiet bazars of Lahore if similarly built are not indicated in the sources. The chief mosques of Jahanabad lay close to the fort for the sake of easy accessibility, the *Badshahi* mosque of Lahore was likewise situated near the fort. Adequate arrangements were made for water supply in this part of Jahanabad. Principal gardens and mausoleums lay on the outskirts of the cities.

The rest of the city seems to have had some craft-wise arrangement.²⁹⁷ Each set of people had separate wards, almost exclusively peopled by them. For instance, the businessmen, servicemen or craftsmen lived in their respective wards. We have seen some of the wards of craftsmen occurring in our sources, such as blacksmith's lane, or "sugar" ward of Agra, the wards of *telis* and brick-moulders at Lahore and the cobblers' ward at

²⁹⁵ *Shāhjahān nāmāh*, III, 45. ²⁹⁶ Md. Baqar, 308.

²⁹⁷ This assumption is well supported by W. Irvine's description of the planning of Farrukhabad in 1714. He asserts that "it was intended that each trade should occupy a separate bazar, hence we have *kasarhatta* (braziers'), *Pasarhatta*, druggists', *sarāfa*, *lohā'i* (ironmongers') *Nunhā'i* (salt sellers'), *khandhā'i* (sugar dealers'). Other quarters were set aside for particular castes, e.g. *mochiāna* (cobblers'), *koliāna* (Hindu weavers'), *Julahāpura* (Muslim weavers') . . . *Kāghazi mohalla* (paper makers') *mohalla*, *The Bangash Nawabs of Farrukhabad*, p. 280.

Delhi.²⁹⁸ This factor, besides fostering professional fraternity, must have made possible a better organisation for defence in the event of any external local danger. In fact, the narrow city lanes, too, would serve the purpose of hampering the advance of a large body of assailants. From the numerous bazars within the city we may assume that each ward was well furnished with its daily requirements; the case of water supply too would be the same.

The lowest set of people would evidently be relegated close to the city wall, away from the fort. With the multiplication of population in the course of time, they even might be pushed beyond the city wall, as their indigence would be their greatest protection. Even the Marhatta freebooters would desist from violating those who had nothing to part with.

Thus the exact location of each ward depended upon the relative position it enjoyed in the social set-up. "The levels of prestige and wealth were progressively higher along the thoroughfare towards the city centre and the lower ranks were relegated to the back lanes and marginal areas which sometimes were outside the city gates."²⁹⁹

Thus to sum up, these three metropolitan cities during the period of political stability reflected the highest level of economic, educational, cultural and social developments of 16th—18th century Hindustan. Though originally founded and expanded for political considerations, they had in the course of time developed identities, population, character and resources of their own. Populations multiplied acquiring property interests and other local ties. The resources, with the continual inflow of requisite commodities from the hinterlands, developed local roots in the its prosperity and population steadily increased,³⁰⁰ impervious of imperial stay. This phenomenon appears in a more pronounced form in the case of Lahore, where the intermittent

²⁹⁸ See above.

²⁹⁹ J. A. Brush, *The Morphology of Indian Cities*, in *India's Urban Future*, ed. by R. Turner, California Press, p. 65.

³⁰⁰ For some of the new areas where the growing city was extended like *Chauk Dara*, *Parvez mandi*, *Begampurah*, *band i Alamgiri* and *Fidai Khan ka Mohalla*, see Md. Baqar, pp. 303, 304, 305-6 and 308 respectively.

residence of the king and court were for short durations, while its prosperity and population steadily increased,³⁰¹ impervious to the absence of Court. It redounds to the greater glory of the Mughal monarchs that, apart from direct contributions to these cities, they allowed them to grow their own individualities on independent lines.

CHAPTER III

COMMERCIAL TOWNS : PATNA AND BENARAS

PATNA and Benaras appear as next in rank to the capital cities. But as commerce was the main cause of their eminence and endurance, it seems suitable to group them together under Commercial Cities. As Bahraich owed its survival primarily to its trade, and the new cities of Najibabad and Jaipur were founded partly on account of their commercial suitability, these three towns too may be grouped under the same heading. But since these do not seem to have been more than townships, even at the time of their highest prosperity which was of short duration, these have not been included here.

Patna and Benaras had several points of similarity. Both of them are of ancient origin.¹ Patna achieved eminence as early as the Mauryan rule in the 4th century B.C. By the beginning of our period while Benaras continued its normal course of life Patna suffered a decline in its administrative importance. From an imperial capital it was now reduced to an insignificant town,² which again began to grow by the beginning of the 17th century and was soon after made the provincial capital,³ a position which it retained till the close of our period.

As regards their location, both of them are situated on the bank of the river Ganges⁴ with about 300 miles' distance between them. The river flowing to the south of Benaras⁵ formed a bow

¹ For the ancient origin of Benaras, see A. L. Basham, *The Wonder that was India*, London, 1954, p. 198.

² *A.A.* II, 164, 166.

³ For Patna see '*Ajā'ib*, 185b; C. C. Brahman, 59a; *Khulāsat*, 35; *Hadiqat*, 659; *Haqiqat*, 46b; Hodges, 44; Kindersley, *Letters from the Island of Teneriffe, Brazil, Cape of Good Hope and East Indies*, London, 1777, p. 100; Manrique, II, 140; *Āftābnuma*, 243b.

⁴ Patna: '*Ajā'ib*, 185a; T. Bowrey, *The Countries Round the Bay of Bengal 1669-79*, Hakl. Soc. London, p. 221; *Khulāsat*, 35; Kindersley, 100; G. Md. Khan, 62a.

Benaras: Tavernier, I, 118; Bernier, I, 334; *Khulāsat*, 28; *Hadiqat*, 674; *Haqiqat*, 44a; G. Md. Khan, 53a; *Āftābnumah*, 243b.

⁵ *Hadiqat*, 674; *Āftābnumah*, 243a.

string, the city itself presenting the appearance of a bow.⁶ Patna lay on its west bank⁷ "one end drinking at the Ganges, the other extending inland for over one league.⁸ Incidentally, here, the river Sone effected its confluence with the Ganges.⁹ Evidently it was the stability in the course of the river Ganges at these points that enabled these cities to endure through the ages.

Again geographically too there is much in common between Patna and Benaras, so much so that Spate has grouped them together under the title Middle Gangetic Plain.¹⁰ There are no frosts, mean minimum and maximum temperatures in December/January are around 50° and 85° F., and mean maximum in May exceed 100° F. Rainfall is intense, the average fall on a rainy day being 0.75—1 inch; although real draughts are rare, the monsoon is sufficiently variable to introduce insecurity. The rainy season lasts up to October and a premature cessation may involve both the failure of standing *kharif* and very unfavourable sowing conditions for the *rabi*.¹¹ Most of the contemporary local authors describe the climate of the region as pleasant, especially that of Patna and Bihar, and suitable for agricultural production.¹²

Hinterland: With this alluvial soil of the plain,¹³ the hinterland is rich in rice¹⁴ which dominates over the rest¹⁵ of the crops. Barley, wheat, grain, oilseeds, and sugar¹⁶ are at present produced in decreasing order,¹⁷ which might have been different in our period. For example, by the time Spate wrote he found that cotton "fades out—there are only about 25,000 acres"¹⁸ but we know from Thevenot and others that earlier it used to

⁶ A.A. II, 169; *Khulāsat*, 28.

⁷ Tavernier, I, 12. ⁸ Manrique, II, 139-40.

⁹ Hodges, 146. ¹⁰ Spate, 512-3.

¹¹ *Ibid.*, 513.

¹² A.A. II, 164; '*Ajā'ib*, 185a; C. C. *Brahman*, 59a; G. Md. Khan, 62b; *Hadiqat*, 109b.

¹³ Manrique, II, 140.

¹⁴ A.A. II, 164; '*Ajā'ib*, 185a; *Hadiqat*, 109b; Thevenot, 68; *Bahjat*, 245.

¹⁵ Spate, 513.

¹⁶ A.A. II, 164; '*Ajā'ib*, 185a; *Hadiqat*, 109b; Thevenot, 68; *Bahjat*, 245.

¹⁷ Spate, 515. ¹⁸ *Ibid.*

be an important crop.¹⁹ Similarly, also know that Bihar was then rich in poppy²⁰ which figured very largely in the transactions of the English trader-cum-rulers in the later half of the 18th century,²¹ although now it is extinct.²² Thevenot testifies to the plentiful production of raw silk in Bihar.²³ Next to the alluvial strip north of Patna lay *tarai* which is rich in sal forest, sissoo, tamarisk and reeds.²⁴ A large quantity of saltpetre was found in the province,²⁵ especially at Tirhut where the soil contained a large proportion of saline matter such as nitrate of potash (saltpetre), lime, sulphate and soda. Places where lime and sand dominated were more productive of saltpetre than other parts.²⁶ This saltpetre, generally called Patna saltpetre, was regarded as of good quality.²⁷ Apart from its employment in glass making, meat preserving,²⁸ cooling water,²⁹ manufacture of fireworks,³⁰ saltpetre was chiefly sought after for making gun powder. It was for this purpose that traders of several nationalities had gathered together at Patna engaging themselves in its trade³¹ since the middle of the 17th century onwards, thereby occasioning a great boom in the commerce of the city. This point will further be amplified under Commerce. Patna was equally fortunate in respect of fruits, quality *pān*³²

¹⁹ Thevenot, 68; F. Buchanan, II, 520; also see Moreland, *India at the Death of Akbar*, 119.

²⁰ R. Fitch, Ryley, p. 110; 'Ajaib, 185a; Forster, I, 24-5; *Mirāt*, 453-4.

²¹ Volumes of *Bengal General Journal*, 1799, backwards Range 176, Volumes 49, 47, 45, 43 and so on; P. Banerji, *Indian Finance in the days of Company*, London, 1928, p. 198.

²² Spate, 518. ²³ Thevenot, 68. ²⁴ Spate, 515.

²⁵ Manucci, II, 246; Bernier, I, 144; Forster specifies it at Chhapra, 20 miles above Patna, Forster, I, 26.

²⁶ J. Stevenson, On the Manufacture of saltpetre, *J.A.S.B.*, Vol. II, 1833, p. 23.

²⁷ Mundy, II, 156.

²⁸ I. D. Parshad, *Some Aspects of Indian Foreign Trade*, London, 1923, p. 30.

²⁹ *A.A.* I, 55; Bernier, I, 356-7.

³⁰ *Bayāz i Khushbooī*, completed by Mohammad Azam, Ethe 2784, ff. 139b-154a.

³¹ Bowrey, 223-5; Bernier, I, 440; Tavernier, I, 122 and II, 12; *E.F.* 1668-69, p. 304-5; Forster, I, 25; Kindersley, 100.

³² *A.A.* II, 164; 'Ajaib, 185a; *Bahjat*, 245; *Hadiqat*, 659.

(betel leaf), jackfruits,³³ which occurred in abundance but the most plentiful fruit grown in the region was mango. Its orchards and groves are mentioned due south of the city.³⁴

The additional wealth of Benaras hinterland consisted of woods of bamboos at Latifpur.³⁵ Bernier refers generally to the "extremely rich and fine countryside,"³⁶ while Manucci mentions many vegetables and cereals that were grown around Benaras.³⁷ It is also attested to have been rich in fruits,³⁸ fish and game.³⁹ Widespread cultivation of sugarcane and poppy at Benaras, later on, proved a very lucrative source of business to the English factors as shall be seen elsewhere in greater detail.

Water Supply : Evidently these cities were well supplied with water ; the means presumably being the same as in the capital cities, viz. rivers, tanks, and wells. In fact, the author of the *Hadiqatul aqālīm* states that the water supply in Patna (and other cities of the province) was so considerable that it left a fair margin for keeping its rich foliage well watered and green.⁴⁰ Besides the usual male water-carriers, female ones are also noticed at Patna ; they received about eight annas a month for each bag supplied at home.⁴¹ Probably the practice obtained westwards as well and Benaras too had female water-carriers for servicing the households.

Provisioning : Little is known about the supply of provisions at these cities of Patna and Benaras ; no doubt, their adjacent areas kept them well furnished with the requisite materials.⁴² The long distance consignment of provision from the west arriving at Patna mainly comprised salt, brought both by land⁴³ and river,⁴⁴ wheat and occasionally rice supplied by *banjārahs*.⁴⁵

³³ A.A. II, 164.

³⁴ S. Mutākherīn, I, 41, 453, 456, Sarkar, *Fall of the Mughal Empire*, I, 115.

³⁵ Hodges, 85 ; *Balwant Nāmāh* by Faqir Khairuddin Allahabadi, Etne, 483, p. 49.

³⁶ Bernier, I, 334. ³⁷ Manucci, II, 428.

³⁸ A.A. II, 169 ; R. Fitch, Ryley, 103. ³⁹ R. Fitch, Ryley, 102.

⁴⁰ *Hadiqat*, 659. ⁴¹ F. Buchanan, I, 287.

⁴² For the provisioning of Patna from adjacent areas, see *Soldiering in India 1764-1787*, (Champions Journal inclusive) by W. C. Macpherson, London, 1928, pp. 33, 35 and 37.

⁴³ A.N. III, 586. ⁴⁴ R. Fitch, Ryley, 94, 119.

⁴⁵ Bowrey, 225.

Martin states that goat meat was popular at Patna and sold everywhere. Beef and buffalo meat were not esteemed even by Muslims. Butchers abounded who could slaughter animals as often as they liked.⁴⁶ Mango and tamarisk wood was used as fuel but it was neither good nor cheap, selling at 298 lbs. for a rupee (or four maunds per rupee).⁴⁷ From *Champions Journal* we learn that in January⁴⁸ and February, 1770, Patna and its suburbs were visited by a famine and consequently large numbers perished.⁴⁹ In March, however, 500 maunds of grain was sent by boat for the use of the city.⁵⁰ About a month later a train of *banjārahs* are reported to have arrived there with 500 bullock-loads of grain.⁵¹ Undoubtedly further consignments must have been received by the city in order to relieve the distress, but that is not mentioned.

According to *Champions Journal* the supply of grain and provision in the city *gunjes* was beset with difficulties in 1770s. A *dastak* or *parwānah* (permit) had to be obtained either from the British agents,⁵² or from the nominal native chiefs.⁵³ This ambiguous situation led to a lot of trouble to the traders⁵⁴ by causing unnecessary delay in their business.⁵⁵ Further, in some of the *gunjes* the English (a Mr. Goldwin is mentioned) had imposed a duty of Rupees thirty per 100 maunds, so that each bullock-load was required to pay eleven pice as duty.⁵⁶ Since the duty was levied on some *gunjes* while others were exempt from such a taxation, the result was corruption,⁵⁷ disputes,⁵⁸ and even oppression of traders and merchants.⁵⁹ It would have been useful to note the effect of this exaction on the grain prices at Patna, but unfortunately we do not have the requisite data to assess them. But this duty notwithstanding, the prices seem to have remained relatively lower than in other parts of Hindustan as is attested by Ghulam Mohammad Khan in 1200 A.H.⁶⁰ But this was no new phenomenon for Patna. Earlier

⁴⁶ M. Martin, *History etc. of Eastern India*, I, 120. ⁴⁷ *Ibid.*, 123.

⁴⁸ *Calendar of Persian Correspondence*, Imperial Record Department, Calcutta, 1916, Vol. III, p. 3; *Champions Journal*, p. 30.

⁴⁹ *Champion*, 30. ⁵⁰ *Ibid.*, 33. ⁵¹ *Ibid.*, 35.

⁵² *Ibid.*, 32. ⁵³ *Ibid.*, 36. ⁵⁴ *Ibid.*, 37.

⁵⁵ *Ibid.*, 36; *Persian Correspondence*, III, 3.

⁵⁶ *Champion*, 64. ⁵⁷ *Ibid.* ⁵⁸ *Ibid.*, 36, 75.

⁵⁹ *Ibid.*, 37. ⁶⁰ G. Md. Khan, 62b.

writers like Abdul Latif passing through Patna (in 1608) had noticed that all kinds of articles needed by men for food (and clothing) were twice or thrice as cheap and abundant here as in other places.⁶¹ Similarly the author of *'Ajā'ib i Duniya* (c. 1074/1650) writes about the prevailing moderateness of prices at Patna in the same strain.⁶² It is possible that this cheapness was in part an extension of the cheapness prevailing in Bengal through the ages,⁶³ or in other words, some of those conditions which governed the prices in Bengal were, due to proximity, operative at Patna too. A possible explanation of this difference in prices may well have been the fact that the pressure of population in the capital cities was much greater than at Patna. It is interesting to note that as we move westwards the current prices rise higher and higher until the capital cities are reached where these require imperial regulation for fixing their standard level.⁶⁴

We have no information regarding the provisioning of Benaras up to about 1770. In 1777, it is said to have received from Bengal via Patna by boats spices, betel nuts, and cocoanuts.⁶⁵ The existence of a *chauki* for checking and charging the import and export of foodgrains in the city in 1784⁶⁶ would, however, suggest that Benaras, like Lahore, too actively participated in the general commercial intercourse of foodgrains and provisions. Some imported goods selling at Benaras are mentioned in the price list fixed by W. Hastings in 1781 and preserved in the *Papers Relating to India*, such as spices, saffron, dry fruits and salt. Spices, consisting of several articles such as cloves,⁶⁷ nutmegs,⁶⁸ cinnamon⁶⁹ and pepper⁷⁰ were priced at Rupces four hundred and sixty, two hundred and sixty, sixteen and twenty two per maund respectively, whereas saffron was at Rupees

⁶¹ A. Latif, tr. Sarkar, *J.B.O.R.S.*, Vol. V. Part IV, P. 599.

⁶² *'Ajā'ib*, 185a.

⁶³ *Rehlah of Ibn Battuta*, tr. by Dr. Agha Mahdi Husain, Baroda, 1953, pp. 243-45; Varthema, *Itinerary through Southern Asia*, London, 1928, p. 78; Linschoten, *Itinerario 1583-1588*, tr. Burnell and Thiele, Hakluyt Society, pp. 300-1; Pyrard, I, 327; Roe, *Embassy*, II, 218.

⁶⁴ *A.A.* I, 58.

⁶⁵ *B.B. of Rev. and Misc. Proceedings*, Range 98, Vol. 22.

⁶⁶ *Papers*, I, 298-300. ⁶⁷ *Ibid.*, 302.

⁶⁸ *Ibid.* ⁶⁹ *Ibid.* ⁷⁰ *Ibid.*, 300.

thirty two per seer.⁷¹ Among the dry fruits almonds, dates, raisins and *munaqqas*⁷² (large raisins) are included as selling at Rupees thirty five, sixteen, fifty and thirty a maund respectively. Lahori and Sambhar salt too were available in the bazars of Benaras at Rupees thirteen and four.⁷³ The price of "*Sindh Poorbi*" salt was fixed at Rupees six and eight annas per maund,⁷⁴ and it was largely imported from Bengal via Patna.⁷⁵ The foodgrains, sugar and *ghee* prices fixed by the Governor-General may be given below in a tabular form.

Articles	Maximum price			Minimum price			Per maund
	Rs.	as.	p.	Rs.	as.	p.	
Rice	4	—	—	1	4	—	"
Moth	1	—	—	—	—	—	"
Mutter, Peas	—	10	—	—	—	—	"
Gamdum wheat	—	14	—	—	—	—	"
Jaw, barley	—	11	—	—	—	—	"
Sarson, rape	—	14	—	—	—	—	" ⁷⁶
Sugar	7	—	—	2	12	—	"
Kund i dhatua (?)							
Some kind of sugar	2	4	—	—	—	—	"
Rab	2	—	—	—	—	—	"
Ghee	9	—	— ⁷⁷	—	—	—	"

Since all these were reckoned as dutiable commodities at the official *chauki*,⁷⁸ we may infer that their import was a regular feature of the city.

Commerce: Two features in the location of Patna and Benaras rendered them eminently suited for their commercial activities. First, the common river Ganges, being navigable throughout the year to tonnage ranging from 400 to 500 tons⁷⁹ was very convenient and safe for the transportation of bulky merchandise. With its several navigable tributaries (like the Jamna), it linked the two cities with all others lying either on the main river or on any of its auxiliaries. Secondly, their midway position between the capital cities and rich *doābah* on

⁷¹ Ibid., 302. ⁷² Ibid., 303.

⁷³ Ibid., 304. Lahori is spelt as "Sahori" in the text, which has been corrected here; misspelling of local words is quite frequent in the book.

⁷⁴ Ibid. ⁷⁵ See below. ⁷⁶ *Papers*, I, 308. ⁷⁷ Ibid., 300.

⁷⁸ Ibid., 298-300. ⁷⁹ Moreland, *op. cit.*, 167.

the west and the plentiful Bengal possessing a convenient sea outlet in the east made them ideal centres of trade and commerce. Benaras was connected by riverine routes with Patna, which in turn was linked up with Murshidabad (earlier Maqsoodabad),⁸⁰ Hugli,⁸¹ Calcutta, Dacca⁸² and Satgaon.⁸³ The English observed that the current of the river from Patna towards the south-east was so strong that it could carry down frigates in five or six days, while the up-coming voyage took thrice the time.⁸⁴ Flat-bottomed vessels called patellas with a capacity of four to six thousand maunds moved up and down between Hugli and Patna.⁸⁵ As this route by the same river extended up to the imperial cities of Agra and Delhi, the principal consumers of the region, the commercial traffic of Patna and Benaras was greatly stimulated.

Besides this feasibility of riverine intercourse, Patna and Benaras also enjoyed the advantage of convenient land routes. P. Mundy informs us that the emperor Jahangir had ordered a road to be built from Patna to Agra for the comfort of the travellers.⁸⁶ The construction of this road may have been necessitated by the heavy traffic on the route. When P. Mundy travelled on this road, he found it covered with shady trees on either side "each at a distance of 8 to 10 steps and the rank from side to side about 40."⁸⁷ Some other authors such as Manrique⁸⁸ and Kindersley⁸⁹ used this route and from their description it appears that later on though not usable by carts, the only mode of conveyance of goods during the rains,⁹⁰ and not as comfortable as the Lahore-Agra highway, it was nevertheless fairly good. Manrique, for instance, travelling by ox-driven carts had found the road level and the surrounding areas studded with habitations. The large towns and small villages along it were much frequented by travellers. Therefore, the route was well

⁸⁰ G. Md. Khan, 62b.

⁸¹ E.F. 1618-21, 214; *B. B. of Rev. and Misc. Proceedings*, Range 98, Vol. 22.

⁸² *B. B. of Rev. and Misc. Proceedings*, Range 98, Vol. 22.

⁸³ R. Fitch, Ryley, 110-115.

⁸⁴ E.F. 1618-21, 214. ⁸⁵ Bowrey, 225. ⁸⁶ P. Mundy, II, 83.

⁸⁷ *Ibid.*, 84. ⁸⁸ Manrique, II, Chapter Ivii.

⁸⁹ Kindersley, 105. She speaks about Patna to Benaras only.

⁹⁰ E.F. 1618-21, 258.

equipped with serais for the caravans, some being quite famous and built by wealthy men for philanthropic purposes,⁹¹ such as *serai Rāni*,⁹² *serai Puranderi*⁹³ and *serai Bulāqi*.⁹⁴ Similarly, tanks were built at convenient distances and some of them are referred to by our sources.⁹⁵ On this route goods sent from Patna to Agra usually charged Rupee one and four annas or one and eight annas per maund for a journey of thirty-five days' duration.⁹⁶ When the time was shortened, the charge was raised, for example, for thirty days' journey the payment was fixed at Rupces two per *Jahāngīrī maund*. It was, however, stipulated that if they took more than the agreed time, the payment would be only Rupee one and ten annas per maund⁹⁷ instead. Again, during rains the payment was raised to Rupces two and eight annas per maund though the time taken was relatively longer.⁹⁸

The road from Benaras to Lucknow called the Lucknow-Road was also kept in good repair especially after the rise of the Lucknow *Nawab* viziers.⁹⁹ Its approaches at both ends were lined with shady trees on either side and by pucca tanks at frequent intervals built by rich Hindus.¹⁰⁰ The same road extended westwards reaching Agra via Qanauj.¹⁰¹ Thus under normal circumstances a traveller could move with relative ease and freedom from Delhi and Agra to Patna and Benaras.

Garhi served as the key passage between Bengal and Bihar and thence to Upper India.¹⁰² A land route ran from Maldah in Bengal along the northern bank of the Ganges and passing by Chhapra, Tirhut (Benaras ?) reached right up to Jaunpore.¹⁰³ Though it did not touch Patna it was conveniently connected with the city through Chhapra which was only ten *kos* from Patna.¹⁰⁴

⁹¹ Manrique, II, 146.

⁹² Newsletters, Sarkar, *J.B.O.R.S.*, 1931, Vol. XVII, p. 345.

⁹³ Macpherson's Journal in the *Soldiering in India* etc., p. 79.

⁹⁴ *Ibid.*, 81. ⁹⁵ *Ibid.*, 86, 97, 99, etc.

⁹⁶ *E.F.* 1618-21, 191.

⁹⁷ *Ibid.*, 199. ⁹⁸ *Ibid.*, 268.

⁹⁹ Macpherson's Journal, 86.

¹⁰⁰ *Shuj'a ud daulah 1765-75*, by A. L. Srivastava, Lahore, 1945, Vol. II, p. 346.

¹⁰¹ N. Ufflet, Foster, 175-6.

¹⁰² *A.N.* III, 98, 151, 230; *Mā'asar i Rahīmī*, II, 12.

¹⁰³ Sarkar, *History of Bengal*, II, 201. ¹⁰⁴ Tavernier, I, 122.

Thus both Patna¹⁰⁵ and Benaras¹⁰⁶ shot up into prominence as the principal mart for all "Bengalla goods." Evidently the Bengal traffic acquired greater magnitude after the establishment of relatively peaceful administration in Bengal under the Mughal subedar Raja Mān Singh, but more particularly after the final surrender of the refractory Patlian rulers of Eastern Bengal by 1612 under Islam Khan.¹⁰⁷ It may be noted here that writers prior to this date, Persian or European, did not notice any particular briskness in the traffic of Patna or Benaras with Bengal. Indeed, Abul Fazl grades Patna merely as one of the forty six *mahals* of the sarkar of Bihar,¹⁰⁸ though its two forts (one of brick and the other of mud) would suggest its relative importance in the past. No mint existed here, though there was a copper mint at Benaras.¹⁰⁹ Nevertheless, when R. Fitch's fleet while making a halt at Benaras, proceeded to Patna on its way to Satgaon, he noticed at Patna the embarkation of raw cotton, cotton fabrics, great quantities of sugar and opium, which were all destined for Bengal.¹¹⁰ This reflects the potentialities of Patna in regard to both its produce and as an *entrepôt*, the development of which was greatly facilitated by the incorporation of Bengal under the same rule.

In the 1620s the English factors considered it worthwhile to instal their factors at Patna.¹¹¹ This may, indeed, be regarded as the starting point of the commercial prosperity to which it rose rapidly. But the English factors found that the Portuguese traders were already established there bringing large quantities of an assortment of goods from the southern ports of Bengalla and "buying up all they can lay hand upon."¹¹² The usual commodities imported to Patna by the Portuguese merchants were spices, Chinese silk, tin and jewels; whereas their export invoice included Jaunpur carpets, *amertees*, *khāsa* and some silk through the Bengal ports.¹¹³ As a matter of fact, this trade of the Portuguese seems to have been quite prosperous at this time, for

¹⁰⁵ W. Finch, Foster, 178; also see p. 176.

¹⁰⁶ E.F. 1618-21, 212; De Laet, 65.

¹⁰⁷ *Tuzuk*, I, 270. ¹⁰⁸ A.A. II, 166. ¹⁰⁹ A.A. I, 31.

¹¹⁰ R. Fitch, Ryley, 110.

¹¹¹ E.F. 1618-21, 182.

¹¹² *Ibid.*, 197.

¹¹³ *Ibid.*, 195.

the Dutch traveller Van Twixt observed in 1634 that their income from the import duty alone (levied on their total imports including those of Patna) enabled them to maintain a large garrison.¹¹⁴

However, the English themselves invested a sum of Rupees 29,000 in the course of their first year of arrival at Patna from July 1620 to June 1621, in addition to the money earned by the sale of their own goods.¹¹⁵ Apart from the English and the Portuguese, a large number of Mughal (Central Asian) and other western merchants used to gather here in order to procure varieties of cotton goods such as mandils, girdles, *aljāhs*, *Māldah dupattas* and *Qa'im Khānis*¹¹⁶ of Bihar, which they transported to Lahore en route to Persia.¹¹⁷ Patna, overcrowded with merchants of all nationalities, became the scene of keen competition for the purchase of these indigenous goods.¹¹⁸ But as most of them used to buy directly from the weavers residing outside the city, the internal bazar did not store large stocks of these local manufactures.¹¹⁹ Incidentally, the local and the Patna prices were in the ratio of seven and eight.¹²⁰ But it was perhaps not easy for a stranger to transact business directly with the weavers due to his unfamiliarity with the dealers, chief places of production and real value of goods.¹²¹ Thus it follows that the volume of cotton goods produced in and around Patna was large enough to adequately meet the demands of the English, the Portuguese and a much larger number of Central Asian and native traders. Moreover, the *savaya* per cent *dasturi*,¹²² (or 1½% commission) allowed to the buyers by the weavers goes further to establish that the latter had more on their hands than they could dispose of.

¹¹⁴ *Dutch Records*, 1629-34, IX, p. ccxii, 4.

¹¹⁵ *E.F.* 1618-21, 191, 195-6, 198, 236, 247-8, 253, 256 and 257.

The aggregate is given on the last mentioned page and it tallies with the sum of instalments received on the indicated pages.

¹¹⁶ For an explanation of these names of cotton goods, see Chapter V.

¹¹⁷ *E.F.* 1618-21, 195.

¹¹⁸ *Ibid.*

¹¹⁹ *Ibid.*, 204.

¹²⁰ *Ibid.*

¹²¹ Mundy, II, 145.

¹²² *E.F.* 1618-21, 204.

In addition to the local goods, the city also collected goods from the adjoining areas for their sale. Thus from Orissa it received *khāsa*, *malmal i shāhi*,¹²³ *Amāri*, *chārkhāna* (check), *Hamam* (cotton stuffs) and Afghani (silken),¹²⁴ *sahan*, gingham, *rumāls* (and also cotton yarns) from Hugli and Balasore, sundry sorts of raw and wrought silks, fine sashes, and stripes (fine cotton cloth interwoven with gold and silk thread) from Qasim Bazar and *khāsa* muslin from Dacca.¹²⁵ Mundy further adds silk and gold *orni*, *balāband* and *aljāh* from Mālda, silk tafetta from Sherpur Mureha,¹²⁶ quilts from Satgaon,¹²⁷ and raw silk from Maqsoodabad and Saidabad,¹²⁸ or Bengal in general.¹²⁹ Earlier, Pelsaert had observed the annual collection of 1000 to 2000 maunds of raw silk from Bengal and its subsequent despatch to Agra.¹³⁰

The Europeans by about the middle of the 17th century used to embark these goods in boats bound for Bengal en route to destinations over the high seas; the Dutch and the East India Company of the English had their factors stationed at Patna for the purpose.¹³¹ Here we may note that, apart from the Portuguese, neither the English nor the Dutch so far possessed any firm footing in Bengal, but since the 1630s even the Portuguese were fast losing ground.¹³² Therefore, in the absence of a factory or port in Bengal the Dutch and the English operated from Patna which served them as the nearest point to a sea port. The transit facility afforded by the navigable local rivers was a great asset here in enabling them to carry on this traffic.

Moreover, the European traders at this stage were also interested in the local saltpetre. The Dutch,¹³³ the English,¹³⁴ and

¹²³ P. Mundy, II, 154.

¹²⁴ Ibid., 155-56. ¹²⁵ Bowrey, 230-32.

¹²⁶ P. Mundy, II, 155; some of these names are explained in Chapters IV and V.

¹²⁷ Ibid., 156; *E.F.* 1618-21, 195, 198 and 206.

¹²⁸ P. Mundy, II, 156; *E.F.* 1618-21, 253.

¹²⁹ *E.F.* 1618-21, 193-4, 197-8, 205, 213, etc.

¹³⁰ Pelsaert, 7. ¹³¹ Bowrey, 232.

¹³² *Dutch Records*, IX, 1629-34, p. ccxii, 4.

¹³³ Bowrey, 225; Bernier, I, 144; Tavernier, I, 12.

¹³⁴ Bowrey, 224-5; *E.F.* 1655-60, 275-6; *E.F.* 1668-69, 304-5, 308 and 312-3; *The Diaries of Straynsham Master, 1675-80*; London, 1911, Vol. II, 275, 291; Bernier, I, 440; Kindersley, 100.

later on the French¹³⁵ exported "prodigious quantities of this article to East Indies and Europe."¹³⁶ In order to encourage the saltpetre trade, the English Company, in August 1626, was granted licence by its government to make powder for its own needs.¹³⁷ The English factors alone were asked in 1659 to provide annually to England about 800 tons of this article from Patna at the rate of six pounds (sterling) per ton,¹³⁸ as here its price was forty to fifty per cent cheaper than at Hugli.¹³⁹ As a matter of fact, by 1665 the chief attraction to the English at Patna was its saltpetre, on account of which they still had to run the factory.¹⁴⁰ The Dutch had established a factory at Patna for its trade though their refinery was at Chhapra, at a distance of about ten *kos*.¹⁴¹ The English, soon discerning the advantage of the Dutch method, moved in the same direction¹⁴² and eventually obtained the necessary permission to erect their own factory at a maximum cost of Rupees 5000.¹⁴³ Frequent wars in Europe during this period had greatly raised the demand of saltpetre from Patna, so that its trade was further stimulated.

Capital required for investing in this trade was partly met by Europeans from the proceeds of imported foreign goods at Patna, such as *saqarlāt*, broadcloth, vermilion, quicksilver, brimstone, lead, copper, corals and rials-of-eight¹⁴⁴ (i.e. bullion). The fact that notwithstanding occasional losses the proceeds of these goods ensured fifteen to twenty per cent gain when compared with importation of ready money from Europe¹⁴⁵ shows a fairly stable demand for these goods at Patna. In spite of this rush of Europeans for the purchase of saltpetre, Patna was still able to meet the local demand. Thus, for instance, in 1659-60, the Mughal general Mir Jumla had ordered considerable quantities of gunpowder for imperial use.¹⁴⁶

Lignum aloe required by the English was available at Patna

¹³⁵ Kindersley, 100. ¹³⁶ Bernier, I, 440.

¹³⁷ *A Calendar of the Court Minutes of East India Company, 1635-1639*, Oxford, 1907, pp. 32-33 and 50.

¹³⁸ *E.F.* 1655-60, 193, 275-6; *E.F.* 1665-67, 134.

¹³⁹ *E.F.* 1655-60, 275. ¹⁴⁰ *E.F.* 1665-67, 139.

¹⁴¹ Tavernier, I, 122. ¹⁴² *E.F.* 1668-69, 304-05; 312-13.

¹⁴³ *Ibid.*, 308. ¹⁴⁴ Bowrey, 232.

¹⁴⁵ Bowrey, 232-33. ¹⁴⁶ *E.F.* 1655-60, 264, 393.

at Rupee one and ten annas a seer of thirty three *paisa* weight,¹⁴⁷ or from Rupees two to ten per seer¹⁴⁸ (of the same weight) or from Rupees twenty to forty and fifty per maund depending upon the variety bought.¹⁴⁹ Similarly, gum lac of very good quality¹⁵⁰ could be purchased at Rupees four and a half per maund, but owing to the cost of freight it was found to be cheaper at Agra.¹⁵¹ The Europeans also invested in the esteemed Patna musk,¹⁵² which was actually imported from Bhutan via Gorakhpur paying a duty of twenty five per cent,¹⁵³ on its way to Patna.¹⁵⁴ Tavernier, in the course of two months had bought it to the value of Rupees 26,000 at the rate of eight francs for an ounce, as it was bought loose.¹⁵⁵ The import of salt for the distribution westwards and export of opium so important later on, do not figure amongst the goods handled at this stage.

Thus within a period of a few decades the trade of Patna had assumed such proportions that in 1641 Manrique termed it as "vast." Furthermore, he observed, that it was on account of its trade that it had grown into one of the wealthiest cities of the Mughal empire, offered all the requisite amenities of a big city, inhabited by about 200,000 people, besides the foreigners attracted here by its commercial potentialities and contained as many as six hundred wealthy brokers or middlemen.¹⁵⁶ Nor were the bankers and *sarāfs* lagging behind. The instalments for the sum of Rupees 29,000 received by the Patna factors during 1620-21 and referred to above were all in various forms of bills and cheques to be cashed locally.¹⁵⁷ Champa Shah is said to have been the chief banker of the city, whose son was posted at Agra in the same business.¹⁵⁸ The *sarāfs* must have earned substantial incomes owing to the activity in transactions, by the discount allowed in the exchange. Maṇ Makan was one of the early local *sarāfs* and he once earned Rupees eight and a half

¹⁴⁷ E.F. 1618-21, 200. ¹⁴⁸ Ibid., 258.

¹⁴⁹ Ibid., 206. ¹⁵⁰ P. Mundy, II, 156.

¹⁵¹ E.F. 1618-21, 258. ¹⁵² Bowrey, 229.

¹⁵³ Tavernier, II, 259. ¹⁵⁴ Ibid., 143.

¹⁵⁵ Ibid., 258.

¹⁵⁶ Manrique, II, 140.

¹⁵⁷ E.F. 1618-21, 191, 195-96, 198, 236, 247-48, 256-57.

¹⁵⁸ E.F. 1618-21, 198.

for exchanging Rupees 2000 at a time when the exchange rate had fallen.¹⁵⁹ The usual rate was one and a half per cent.¹⁶⁰

The commerce of Patna and Benaras enters a new phase in 1765, when the *Diwāni* of the Bengal provinces was ceded to the British by Emperor Shah Alam.¹⁶¹ This in practice implied that the erstwhile traders assumed political power as well. Since commerce was a part of the *Diwāni* department, the English writ prevailed in the matter of Patna trade. But these new rulers, having been mere traders so far, had had no occasion to learn the methods of governing the region. Consequently their administrative obligations were subordinated to their commercial interest which they still held as primary. Inexperience of the local administration, too, led them into constant experiments¹⁶² not only in governing the region but also in the commercial sector, such as frequent alterations in levying the duty.¹⁶³ It also resulted in a spurt of traffic among other places at Patna¹⁶⁴ which served as their western outpost. But this spurt of traffic was confined to the English and their native subordinates only;¹⁶⁵ other traders seen above were strictly excluded from engaging in business here as they had been so far privileged to do under the Mughals. With a view to encourage and promote commerce, the Mughal rulers had accorded liberal facilities to all those who wished to engage themselves in trade with India or Indians regardless of their nationality or community.¹⁶⁶ The English, with their base on the commerce of the country, could not afford such a proposition of admitting competitors in the field. The rub, however, was that the other traders, Mughal and Central Asians especially, used to bring huge sum of money for investment,¹⁶⁷

¹⁵⁹ Ibid., 236. ¹⁶⁰ Ibid.

¹⁶¹ *East India Company Papers Relative to the Affairs of East India Company from 1756 to 1766*, no. XVI, copy of the Firman pp. 45-6; Bolts, No. XVIII, p. 29.

¹⁶² P. Banerji, *Indian Finance in the Days of the Company*, London, 1928, see Chapter III.

¹⁶³ Ibid., 188-89.

¹⁶⁴ Bolts, 191.

¹⁶⁵ Ibid.

¹⁶⁶ Ibid., 13.

¹⁶⁷ Bolts, 200. He says that Kashmiris, Multanis, Sheikhs, Pathāns, sunnyāsis, Betteas, etc. used to come to Bengal in large parties of many thousands together with troops of oxen for the transport of their goods

so that when they were driven out of the field as competitors the drain out of Patna continued unreplenished causing considerable shortage of silver,¹⁶⁸ besides adversely affecting the general economy. This shortage was further intensified as gradually even the English stopped importing bullion and were making their purchases from the revenue accruing out of the ceded land. Thus, for example, in 1771 the English bought goods worth a sum of £768,500 derived out of the land revenue and "without importing an ounce of silver."¹⁶⁹ Moreover, the new rulers had, in practice, monopolised the production of cotton fabrics;¹⁷⁰ the weaver, by virtue of the advance he was made to accept, was bound to produce for the new masters alone. The loyal native *gumāshṭas* in their service saw to it that the weavers sold their goods to none other and in the end paying their own price.¹⁷¹ The baneful effects of this method on the chief industry of the land could not but prove detrimental to the trading interests of the city.

The English had been carrying on duty-free inter-regional trade in Bengal provinces since 1672, when the Mughal subedar Shaista Khan had granted them permission to do so.¹⁷² Subsequently Sirajuddaulah¹⁷³ and Mir Jafar¹⁷⁴ had endorsed the Farmān with more liberal clauses. In 1760 Nawab Mir Qasim granted them the permission of duty-free trade in salt.¹⁷⁵ After several changes relating to its proprietary rights, management, right of trade and duties to be levied, Hastings in 1772-73 took over its monopoly.¹⁷⁶

from different parts of Hindustan, by which the inland importation of bullion into Bengal far exceeded the whole importation by sea from Europe, Gulf of Persia and Arabia. Verelest also writes that Bengal which used to import considerable bullion through its foreign trade is no longer in a position to do so since the rise of the European Companies. Verelest, *A View of the Rise, Progress and Present State of the English Government in Bengal*, London, 1772, p. 85.

¹⁶⁸ Verelest, 85; Bolts, 204.

¹⁶⁹ Verelest, 85.

¹⁷⁰ Bolts, 191-92; 196.

¹⁷¹ Ibid., 191-94; 196-97.

¹⁷² Steward Charles, *History of Bengal*, London, 1813, quoted by I. Parshad, p. 5.

¹⁷³ *East Indies*, No. II, p. 13.

¹⁷⁴ Ibid., no. IV, General Sanad from Mir J'āfar, pp. 16-7.

¹⁷⁵ P. Banerji, 188-89.

¹⁷⁶ Ibid., p. 189, n.n. 2, quoting from the Ninth Report of the Select Committee, 1783.

With the fall in the output of the western salt works as seen elsewhere, this Bengal salt began to be imported in large quantities in Hindustan via Patna.¹⁷⁷ Thus, in the course of nine months from January to September 1777, a total amount of 54,126 maunds of Bengal salt and 24,566 maunds of Madras salt were brought to Patna,¹⁷⁸ partly for local consumption but mainly for its transmission westwards. With no other substantial trader engaged in this business at the time, the figure above would indicate more or less the aggregate of the imported salt during the period. Besides these two varieties a "cinder" salt is also mentioned in the same source but its volume was negligible compared with the other two.¹⁷⁹ Almost all the traders on whose account the transactions were made appear from this record as Indians.¹⁸⁰ Indeed, it was decreed by Clive in 1766 that only the black merchants should have the right to sell it inland in Bengal provinces.¹⁸¹ Earlier, some salt used to be imported at Patna via Bengal from the Deccan, western coast and Persia,¹⁸² but when the English took over its monopoly its manufacture in Bengal perhaps extended, resulting in the decline of foreign imports. Thus in 1773 only 3,000 maunds of Persian salt was received at Patna.¹⁸³ At Patna the lowest price of Bengal salt between the years 1760-1765 oscillated between Rupees 350 to 700 per 100 maunds,¹⁸⁴ or 13/16 to 2 35/64 d. per lb.; whereas in 1769-1770 the current price ranged between 13/16, 1 15/64, and 1 31/64 d. per lb.¹⁸⁵ This shows that while the minimum price remained constant, the maximum registered a fall in 1769-1770.¹⁸⁶

Betel nut figures as one of the chief articles in which the English traders were allowed to exercise monopolistic control according to the *Farmān* above. It would be useful to note here

¹⁷⁷ Verelest, 116.

¹⁷⁸ B. B. of Rev. and Misc. Proceedings, Range 98, Vol. 22.

¹⁷⁹ Ibid.

¹⁸⁰ Ibid.

¹⁸¹ Verelest, 115 and Appendix No. 145, p. 251.

¹⁸² Bolts, 203.

¹⁸³ B. B. of Rev. and Misc. Proceedings, Range 98, Vol. 15.

¹⁸⁴ Verelest, 116. ¹⁸⁵ Ibid., 117.

¹⁸⁶ This may be compared with the salt prices fixed at Benaras seen above.

that betel nut was found mainly in the Deccan,¹⁸⁷ Bengal,¹⁸⁸ or else it was imported here,¹⁸⁹ and that it is one of the chief ingredients of *pān*—universally eaten all over Hindustan. In effect, it would thus imply that the demand for betel nut in the region of Patna and the west was assured. It used to be purchased by the local dealers by contract in Bengal under such terms as were considered suitable to the English Company.¹⁹⁰ Naturally no other individuals or concerns were allowed to deal in this commodity except the said Company¹⁹¹ or whom the Company permitted. This situation would enable them to fix their own prices, the amount to be supplied and to control its trade in general. Thus large consignments of betel nuts used to be imported at Patna by boats; for example, in 1777 in the course of nine months from January to September an aggregate of 9,607 maunds 10 seers was received.¹⁹² Almost all the dealers on whose account the transactions are noted were the local merchants, both Hindu and Muslim.¹⁹³ The exact terms on which these merchants were allowed to carry on this business are not specified.

Silk too was included in the import invoice of Patna. Earlier, the Armenian traders were chiefly engaged in the trade of silk. They had been favoured with *Farmāns* from the Mughal emperors entitling them to contract business in the empire freely after paying a duty of three and a half per cent.¹⁹⁴ These traders were concentrated mainly at Saidabad¹⁹⁵ in Bengal, but since the

¹⁸⁷ *Chamanistān*, 45; for a treaty with the rajah of Biramgah (in the Deccan ?) in 1756 relating to betel nut trade of the East India Company, see *East Indies*, No. III, p. 79.

¹⁸⁸ *A. A.* II, 135; *Haft Iqlīm*, I, 40b; *Bahāristān i Gha'ibī*, I, 174, 176.

¹⁸⁹ Bolts, 167.

¹⁹⁰ *Ibid.*

¹⁹¹ *Ibid.*

¹⁹² *B. of Rev. and Misc. Peds.*, Range 98, Vol. 22.

¹⁹³ *Ibid.*

¹⁹⁴ Bolts, 71.

¹⁹⁵ In the Map of Bengal and Its Dependencies of Bengal dated 1st January 1772 incorporated by Bolts, this town is marked as lying immediately below Qasimbazar and a little higher up is Murshidabad. The area was rich in the production of raw silk (see *Riāzus Salātin*, p. 50). Its situation on the bank of Bhagirathi river, a tributary to Ganges, would naturally account for facilitating its transportation to and fro. See Bolts, Map facing p. 1.

establishment of British regime over the province their position had become precarious,¹⁹⁶ so much so that in 1773 only two chests and one parcel of raw silk is noted against a khawajah Punnus.¹⁹⁷ The import of this commodity at Patna was, however, more regular, which was carried on not only for its own consumption but also for transmission westwards, such as Benaras, Akbarabad, Delhi and Lahore.¹⁹⁸ The recipients at the other end were almost all local people; for example, in August 1773, eighteen merchants, nine Muslims and nine Hindus received nineteen bales, nine maunds eighteen seers, eight chhatacks of raw silk, 220 pieces and one parcel of silk cloth from Patna.¹⁹⁹ Similarly in 1777, Patna handled a total volume of 154 maunds 38 seers and two chhatacks of raw silk.²⁰⁰ Besides, silken goods were also imported, both for internal consumption and dispatch to other cities. Thus in 1777, 412 pieces of *mashr'u*, taffeta and velvet were disembarked at Patna.²⁰¹ The volume of this article is strikingly small, presumably because of the general instability of the period and also on account of some local production of silken goods, such as at Benaras.

Patna used to import large quantities of Bengal cotton fabrics as shown above. The Armenian merchants were interested in this trade as well.²⁰² The English who took over the trade continued bringing in the Bengal fabrics; in 1777, a total number of 10,333 pieces of cotton cloth including *cuttani*, *sāris*, *doriah*, and *malmal* were imported at Patna.²⁰³ With the sharp decline in the north-western foreign trade and the general political disorder in which Hindustan was plunged at the time, bringing the number of consumers of this article to a low level, we may reasonably believe this figure as reflecting a decline when compared with the earlier period.

According to Bolts other imports at Patna consisted of broadcloth, iron, copper, lead and a few other commodities of

¹⁹⁶ Ibid., 71-2.

¹⁹⁷ B. B. of Rev. and Misc. Peds., Range 98, Vol. 15.

¹⁹⁸ Ibid.

¹⁹⁹ B. B. of Rev. and Misc. Peds., Range 98, Vol. 15.

²⁰⁰ Op. cit., Range 98, Vol. 22.

²⁰¹ Ibid.

²⁰² Bolts, 71.

²⁰³ B. B. of Rev. and Misc. Peds., Range 98, Vol. 22.

Europe.²⁰⁴ The Revenue Records of the English Company bear out the additional commodities of pepper, *peepul* (red chillies), cocoanut, brimstone, quicksilver and chinaware. Thus in 1773, 1,106 maunds of pepper, three maunds of other spices, forty maunds of brimstone, ten maunds of quicksilver, 100 maunds of steel, fifteen chests plus an unknown quantity of chinaware²⁰⁵ were brought to Patna. Similarly in 1777 the consignment among other articles consisted of 667 maunds 31 scers of pepper, 314 maunds of red chillies, 1000 maunds of copper, some brass plates along with thirty-two pieces of copper ware and 4000 pieces of cocoanuts.²⁰⁶

Most of these transactions for the years 1776, 1777, were, again, carried on on account of the local Hindu and Muslim traders.²⁰⁷ Occasionally Europeans also occur but they were none other than the English themselves. French and Dutch Factories are also mentioned in both the years,²⁰⁸ but Bolts informs us that they were liable to pay duties to the English; indeed, he even names the figure of Rupees 15,000 as paid by the Dutch Company by way of *nazrānah* to the English in 1765 at Patna.²⁰⁹ These European competitors had been effectively dislodged from Patna by means of a treaty between Mir Jafar and Clive in June 1757, according to which "effects and factorics belonging to the French in the province of Bengal, Bihar and Orissa shall remain in the possession of the English nor will I ever allow them any more to settle in the three provinces."²¹⁰ Thus in 1770, the *nā'ib nāzim* of Bihar Rajah Shitab Rai was made to issue an order to the staff concerned to apprehend about twenty or twenty-five Frenchmen moving towards Patna with merchandise from Chandernagar.²¹¹ With all the rivals thus eliminated, the largest number of transactions in 1776 are marked against Qudratullah as 17, then follow Durgacharan with 14 transactions, Nand Kishore, Mous Cosuang (?) have 9,

²⁰⁴ Bolts, 70.

²⁰⁵ *B. B. of Rev. and Misc. Peds.*, Range 98, Vol. 15.

²⁰⁶ *Op. cit.*, Range 98, Vol. 22.

²⁰⁷ *Ibid.*

²⁰⁸ *Ibid.*

²⁰⁹ Bolts, 152.

²¹⁰ *East Indies*, no. 3, copy of the Treaty, p. 15.

²¹¹ *Persian Correspondence*, III, 35.

Charles Child 7, Coosiali 5, Kashinath, Harisingh, Thomas Graham, Ankorolla (?), Kirti and Parampal, each having four transactions during the period. The rest of 158 are distributed among eighty seven traders with transactions ranging from one to three per head.²¹² Similarly in 1777 there were 180 traders engaged in 311 transactions: Parburam eleven, French factory and Graham getting as many as ten each, Saudagarmal eight, Parch Thakur seven, Thakurdas six, Martin, Sitaram, Booteram Halidar, Gulabchand, Gregory five each while Rameshwar, Cayamali (Quim Ali ?), Kassersingh, Jagatseth and Mirza Baqar all have noted four consignments against each of them.²¹³

Like Patna the trade of Benaras as well, gradually passed into the hands of the English from 1765 onwards, as the *Diwāni* area included Benaras.²¹⁴ Its ruler Rajah Balwant Singh (1738-1770) was ever anxious to promote its trade and traffic as may be inferred from his complaint against a Mohammad Ashraf—an oppressive nominee of the Nawab Vizier—that if this state of affairs continues, “its trade would be ruined and the city depopulated.”²¹⁵ Forster passing through this city in 1782 found it “as the first city amongst those possessed by the Hindus in its wealth and populousness,”²¹⁶ and Hodges’ description gives the impression of its being a busy and thriving city.²¹⁷ The local merchants were rich and substantial so that they could advance instalments of tributes to the insolvent Rajah payable to the Nawab Vizier.²¹⁸

Again, like Patna the English imports at Benaras may best be judged by reviewing their entry in their Records during any given year, say 1777. This inventory consists of 10,949 pieces of cotton cloth, 164 maunds, 14 seers and 4 chhatacks of raw silk, 420 maunds, 20 seers of copper, six maunds, seven seers and eight chhatacks of spices, 2,750 cocoanuts, 69 maunds of betel nut, 230 maunds of brimstone, 73 brass plates with an

²¹² B. B. of Rev. and Misc. Peds., Range 98, Vol. 22.

²¹³ Ibid.

²¹⁴ Also see *Papers*, I, 76, for a treaty between Āsafudaulah and the East India Company for the cession of Benaras Zamindari to the latter.

²¹⁵ *Persian Correspondence*, III, 55; for similar efforts of the rajah also see pp. 22 and 30.

²¹⁶ Forster, I, 30. ²¹⁷ Hodges, 59-62.

²¹⁸ *Persian Correspondence*, III, 30.

addition of one maund ten seers of the same, 51 prepetis (?), three maunds of vermilion, one piece of broadcloth, one piece of *pattu*, ten targets (?), seven dozen small looking-glasses, fifteen dozen iron boxes and three maunds of *peepul* (red chillies).²¹⁹ These goods had been sent from Murshidabad, Hugli, and Calcutta and had arrived by boats via Patna, where they were checked and charged for customs.²²⁰ In this list cotton goods predominate; the import of raw silk and copper would indicate their consumption in the manufacture of silk goods and brass and copper utensils, but the major part of copper was required for minting coins.²²¹ According to the *Papers Relating to India*, four varieties of copper were at sale in the Benaras bazars, one of them, the third variety, was called *Messay Kathe Engrezi* (English copper?). Their prices ranged from Rupees fifty-five to sixty-five per maund.²²² Though it is not stated which variety was used in minting *Murādis*, as the local copper coin was termed, from 1776 to 1780, inclusive, 2,538 maunds and 31 seers and 2 chhatacks of copper was, as recorded in the same source, minted at Benaras.²²³

The Murshidabad consignment was composed mainly of raw silk and to a lesser degree, of silken goods, besides other articles. Thus, for example, apart from the 1777 imports, in October 1773, Benaras received 30 maunds, 2 seers of raw silk with an additional small bale of one maund and twenty seers. The consignment also included 390 pieces of taffeta, black pepper and piece-goods; the last mentioned being, however, neither frequent nor in any considerable quantity.²²⁴ The considerable amount of imported brimstone²²⁵ suggests its employment in some industry. Inclusion of minor articles in small quantities, such as one broadcloth piece, iron boxes and so on would indicate that this trade also supplied goods to the individuals or a

²¹⁹ *B. B. of Rev. and Misc. Peds.*, Range 98, Vol. 22; for other years see op. cit., vols 20 and 15.

²²⁰ *B. B. of Rev. and Misc. Peds.*, Range 98, Vol. 22.

²²¹ For a mint at Benaras, see above, p. 100.

²²² *Papers*, I, 304.

²²³ *Ibid.*, pp. 209, 214-15, 219-20, 224-25 and 229.

²²⁴ *Appendix B. B. of Rev. and Misc. Peds.*, Range 98, Vol. 15.

²²⁵ *Ibid.*

group of individual consumers ordered through the medium of established traders, as Kiratchand²²⁶ or Sitaram.²²⁷

The details of the import from western parts at Patna are not known, but that this trade between Patna and western regions was regular may be inferred from the existence of *Sultangunj Chauki* at Patna maintained for checking and charging such trade by land.²²⁸ Earlier, Pelsaert had observed the despatch of Surat and Burhanpur cotton to Patna and Bengal via Agra.²²⁹ The English after the stabilisation of their Bengal trade had monopolised the conveyance of this commodity—occasional consignments of 600 bales—on their own account from port to port.²³⁰ Immediately before their assumption of power over the province, it so happened that apart from the local rich harvest of the year, the influx of raw cotton from western Hindustan had caused the lowering of the current prices. The English, having had the prices forced up to Rupees twenty eight to thirty a maund, were once more confronted with its running down to Rupees eighteen to sixteen a maund. This situation, coupled with the assumption of the *Diwāni*, induced them to undertake two measures in order to safeguard the future. Among the expedients employed to prevent such occurrences, one was to make Nawab Mohammad Raza Khan stop the importation of cotton from the Upper India.²³¹ Besides, they imposed a duty of thirty per cent upon the cotton brought into Patna from the west.²³²

From the organisational point of view it seems that the Company used to dispose of their stocks by holding public auctions where the governor issued *parwānah* (licence) for the purchase and clearing out of the goods.²³³ Perhaps the merchants had *dallāls* or agents so numerous at Patna,²³⁴ who acted for their principals at such auctions.

²²⁶ B. B. of Rev. and Misc. Peds., Range 98, Vol. 22, for the months of August and November.

²²⁷ Ibid., for the month of June.

²²⁸ Appendix B. B. of Rev. and Misc. Peds., Range 98, Vol. 15.

²²⁹ See above.

²³⁰ Bolts, 70, 195.

²³¹ Bolts, 170.

²³² Ibid., 196.

²³³ Ibid., 70.

²³⁴ Manrique, II, 140; Bolts, 193, Chapter XIV.

The export trade of Patna and Benaras was as much tightened by the Company after 1765 as the import trade. The formal declaration of their monopoly in specific articles hardly made any difference in the absolute control over the entire trade of the *Diwāni* region. Almost the entire production and disposal of exportable goods was determined by them. Though the Company had ceased to import bullion, now it had ample local resources to defray the investment expenses from the ceded lands,²³⁵ the government itself making advance for the provision of required goods such as opium and saltpetre. Sometimes the local merchants in the bazars were approached for a loan in order to invest in goods, especially the cotton goods.²³⁶ It cannot, however, be gainsaid that a part—maybe only a small one—of the capital required was being met by the proceeds of the imported commodities (seen above), whose volume on the whole remained very low.

Patna exported a large number of goods, for example, in May 1773, Fort William acknowledged the receipt of piece-goods, saltpetre, opium, sugar, jaggery, shell lac, wax, iron, soap, oil, gunny bag, tinical, tobacco, *chunam* (lime), hides, cow tails, *chuttys* (shoes?), *kusum* flowers, black beads and so on, from Patna during 1772.²³⁷

Evidently, the list does not show merely Patna goods but also includes those that were collected from elsewhere for export purposes; for example, sugar from Benaras (Patna was not producing any at the time), cow tails and wax from the hilly regions or saltpetre from the adjoining districts. The arrival and subsequent embarkation of these goods with the outgoing merchandise would, evidently, entail a fair amount of traffic at Patna.

The Company's demand for saltpetre persisted, so that Lord Clive in 1758 secured a *parwānah* from the Nawab Mir Jafar, entitling it to use "the saltpetre lands of the whole province of Bihar," thereby driving out Khawaja Mohammad "Wazced" from the privilege. The retail dealers in saltpetre were hence-

²³⁵ *East Indies*, Sanad Nos. I, II, VI, VIII, pp. 10-11, 17, 18-19, 22-27, etc.

²³⁶ Bolts, 192.

²³⁷ *Appendix B. B. of Rev. and Misc. Peds.*, Range 95, Vol. 15.

forth prohibited from selling this article in however small a quantity to any other person.²³⁸ Thus the export cargoes of Patna consisted of large quantities of saltpetre. For example, from 1793-98, both years inclusive, a total sum of *sicca* Rupees 304,000 were advanced in carrying annual instalments to the Patna Resident for the provision of saltpetre from Tirhut,²³⁹ the main provenance of the saltpetre of Bihar. Records show that the rather distant places such as Oudh used to receive advances from the Company for investment in this article. Thus, for instance, in the years ending in April 1797 and 1798, the Oudh agent was furnished with Rupees 5,784, 5 annas and 4 pies²⁴⁰ and Rupees 153,614, 15 annas and 4 pies,²⁴¹ respectively, all of which was eventually to be collected at Patna.

Though piece-goods do not occur as one of the articles in which the English had secured a monopoly, the grant of the *Diwāni* entitling them to political domination enabled them to exercise stringent control over their production, sale and export.²⁴² Cotton manufactures were still the principal industry of the region: in 1773 alone 130,000 pieces of varying sizes worth Rupees 634,374 were exported from Bihar.²⁴³ This reflects that cotton goods were still one of the main items required for export, although with other lucrative articles such as opium and saltpetre having come up by 1760s and 1770s, along with other factors, it seems to have relatively declined in importance. Nevertheless the Company was still interested in it and Patna used to handle considerable quantities of this merchandise for export. Even as late as 1796, the Company's invoice included 5,700 pieces worth Rupees 18,078, 10 annas, 4 pies;²⁴⁴ from 1794-96 (both years inclusive) a sum of *sicca* Rupees 259,728, 0 annas and 4 pies were advanced in three instalments to the

²³⁸ *East Indies*, No. VII, copy of the *Parwānah*, p. 19; Verelest, Appendix no. xliii, *Parwānah* from "Jafar Ally Khan" for the saltpetre of Bihar, p. 146.

²³⁹ *Muzaffarpore Old Records*, ed. P. C. Roychaudhuri, Patna, 1959, No. 249, p. 129.

²⁴⁰ *Bengal General Journal*, 1796-97, Range 176, Vol. 43, p. 406.

²⁴¹ *Op. cit.*, 1797-98, Range 176, Vol. 45, p. 633.

²⁴² Bolts, Chapter XIV.

²⁴³ *B. B. of Rev. and Misc. Peds.*, Range 98, Vol. 15.

²⁴⁴ *B. G. Journal* 1796-97, Range 176, Vol. 43, p. 470.

Patna Resident for investment in piece-goods.²⁴⁵ Similarly, in 1793, the Company had advanced current Rupees 1,785, 8 annas to the Patna Resident for the same purpose.²⁴⁶

The procedure adopted by the Company for the provision of piece-goods at Patna (as elsewhere) is explained by Bolts.

The Company or its servants made their purchases through their *gumāshtas* engaged on monthly basis on the recommendation of their chief *bantias*. One *muhammadir* (clerk), one cash-keeper, with some peons and *harkārahs* were attached under the *gumāshtas*. Money could be borrowed from the merchants in the bazar in order to make initial advances to the weavers. The *gumāshtas* could deal either directly with the weaver or employ their own agents called *dallāls* for the purpose. The *dallāls* could, in their turn, recruit underlings known as *paikārs*. The intervention of so many middlemen between the Company and the weaver rendered the position of the latter extremely vulnerable to all kinds of oppression. And yet the weaver had no way of escape from the *gumāshta's* notice as all of them used to be registered in the Company's books. Thus equipped, the *gumāshtas* with their staff went to districts and approached the weavers for investment. The delivery of the goods could be taken in two instalments. The *gumāshtas* armed with the Company's *dustaks* could sell the first instalment in the adjoining districts. The proceeds of this sale were utilised for clearing the balance due to the weaver and obtain the final delivery of goods. The *gumāshtas* saw to it that the weavers worked for none other than either their masters or themselves, which fact ensured the supply of the Company's own goods, and at a price, decided by themselves (*gumāshtas*) and the Company's assorter called *Jāchnedār* in the vernacular. The prices thus fixed were generally fifteen to forty per cent lower than the articles would have fetched in the general bazars. These low prices and the considerable authority that they had over the weavers, presented great temptation to the *gumāshtas* to contract business on their own account whenever they could.²⁴⁷

Undoubtedly, this method as it was calculated to, would

²⁴⁵ Muzaffarpore Old Records, No. 249, p. 125.

²⁴⁶ Ibid.

²⁴⁷ Bolts, 192-95.

ensure an ample provision of Company's or its agents' requirements of piece-goods from Patna. Further, with effective check over other prospective buyers and traders as well as causing the production of only their own required goods, left them the field for the English, free of all the competitors.²⁴⁸ This factor would certainly result, on the one hand, in the decline of the total output and volume of export of cotton goods from Patna. On the other, it would inflate the Company's cargoes of piece-goods for the time being, until some other factors, such as decline in their demand abroad or further decrease in the output of their choice goods, did not supervene to jeopardise the existing situation, a contingency that did not occur till the close of our period.

From 1761 onwards one of the major export items on the Company's list was opium. The Company had in this year obtained the monopoly of trade in this article and the acquisition of *Diwāni* opened a wider field for the project.²⁴⁹ By an Imperial *Farmān* dated 29th December 1764, the emperor Shah Alam had granted the zamindari of Benaras and Ghazipur to the Company which was then held by Raja Balwant Singh.²⁵⁰ The area was particularly useful to the Company from the point of view of opium production. The *Risāla i zirā'at* while explaining the mode of its cultivation and preparation states that the per bigha yield of the best quality was five maunds, of the second quality three maunds and of the lowest it was just about two maunds.²⁵¹ The higher yield of the best quality is perhaps accountable by the superior kind of land, or in other words, the best land was presumably being reserved for the cultivation of the best quality. From the account maintained in the *Bengal General Journal* we learn that warehouses for storing

²⁴⁸ Ibid., 196-97.

²⁴⁹ P. Banerji, 198.

²⁵⁰ Bolts, Appendix No. XIV, p. 21.

²⁵¹ *Risāla i zirā'at*, Or. 1741, ff. 14a-b. In Akbar's times the per bigha yield of poppy in the best land at Agra was worth 480 dams (or Rupees 12), *A.A.* II, 76. The current opium price is nowhere stated which could have enabled us to convert the per bigha yield into maunds. Moreover, there seems to be a difference in place as the *Risāla* is perhaps describing the opium cultivation in some English-held area as the author says that it is sent to the Company's *kothi*, building, see f. 14b.

opium were set up in all these three places : Patna, Benaras and Ghazipur.²⁵² The privilege of supplying opium to the Company used to be farmed out to the highest bidder. Thus in 1773 Hastings farmed out the supply to a Mir Munir who was to deliver the Bihar opium at Rupees 320 and Oudh opium at Rupees 350²⁵³ (per chest ?). Also mentioned in the *Bengal General Journal* are the names of other contractors such as James Laird (at Patna) whom the Company advanced Rupees 150,942, 14 annas and 8 pies and Rupees 472,800 in the years 1794-95 and 1795-96,²⁵⁴ presumably with a view to investing in the purchase of opium. It would be interesting to note here that according to the *Risāla i zirāʿat* the cultivators (of the farmed out crops ?) were paid Rupees five for the best bigha, Rupees four for the second and Rupees three for the third kind.²⁵⁵ Therefore, as the payment was fixed according to the bigha, its actual output perhaps did not matter much to the cultivator.

The Patna opium was distinct from the Bihar opium, as the two varieties had their own separate offices at Patna as may be judged from the *Muzaffarpore Old Records* which cites some of the advances made to the various opium concerns.²⁵⁶ At Benaras during the said two years (1794-95 and 1795-96) the Company advanced Rupees 10,00,016, 13 annas and Rupees 1.10541, 4 annas, 9 pies to Messrs. Gilchrist and Charter.²⁵⁷ The need to realise these advanced sums along with the unmentioned balance and prospect of good profit would naturally induce these contractors to continue their effort to extend its cultivation as far as possible. The production of opium prospered and the volume of its export grew. Though it was bought by the Company mainly for export, it was not equally anxious to bring in the money thus earned within the country, or to any of the three places ; it was used for further investment abroad resulting in the draining of the wealth of Patna seen earlier. Almost all the opium produced used to be requisitioned by the

²⁵² *Bengal General Journal*, Range 176, Vol. 43, p. 216.

²⁵³ P. Banerji, 199.

²⁵⁴ *Bengal General Journal*, Range 176, Vol. 41, p. 469.

²⁵⁵ *Risāla*, 14b.

²⁵⁶ *Muzaffarpore Old Records*, 126.

²⁵⁷ *Bengal General Journal*, Range 176, Vol. 41, p. 469.

Company,²⁵³ leaving a very small amount for local medical contingencies. Thus, for instance, in 1796, only one chest was allotted at Patna to the apothecary worth Rupees 129.²⁵⁹ This restricted supply to the local markets would necessarily tend to wean the addicts from its consumption; at any rate, the number of the new converts to the pernicious drug would be strictly limited. The monopoly was further justified as a security against adulteration²⁶⁰ or preparation of inferior quality.

From Benaras large quantities of sugar and jaggery used to be sent to the outgoing ships for foreign markets by the Company's agents stationed there.²⁶¹ For instance, on 4th September 1792, the Company reported the export of 12,000 maunds of sugar from Mirzapur and Benaras.²⁶² It was, however, planning to procure an additional amount of 7,515 maunds, 9 seers worth current Rupees 45,937/- during the same year.²⁶³ Fort William (Calcutta) Records of 5th May 1773 also corroborate the import of sugar and jaggery from Benaras.²⁶⁴ Company's deep interest in the local opium for purposes of export has been touched upon earlier. Other goods received at Fort William (Calcutta) from Benaras were usually saltpetre, shell lac, lime, cotton, iron, blue (indigo?) and *chuttys*.²⁶⁵ Evidently, all these goods did not originate from Benaras alone, but were collected from other parts as well; for example, saltpetre used to be dispatched also from Oudh, or blue (indigo) from Agra. The demand for indigo though, had considerably fallen in foreign markets due to its cultivation in America;²⁶⁶ its consumption in the textiles of districts of eastern India perhaps lingered on. First the collection and then the arrival and despatch of these goods must have entailed considerable activity at Benaras. Presumably Benaras functioned as an entrepôt for Ghazipur goods meant for Patna and further east via Patna

²⁵⁸ *Risāla*, 14b.

²⁵⁹ *Bengal General Journal* 1795-96, Range 176, Vol. 41, p. 470.

²⁶⁰ P. Banerji, 198. ²⁶¹ See Chapter VI.

²⁶² *East India Sugar, Papers Respecting the Culture and Manufacture of Sugar in British India*, London, 1822, p. 104.

²⁶³ *Ibid.*, 72.

²⁶⁴ *B. B. of Commissioners Customs, Appendix 2*, Range 95, Vol. 15.

²⁶⁵ *Ibid.*, see under 5th May, 1773.

²⁶⁶ Bolts, 69.

as well as for those intended to be despatched westwards. If so, its principal articles were opium (reviewed earlier), sugar and piece-goods. As regards sugar, the general annual excess at Ghazipur used to be 40,000 maunds.²⁶⁷ Thus in September 1792 its export to Bengal amounted to 35,000 maunds,²⁶⁸ the rest being sent overland to south via Oudh.²⁶⁹ In July 1796, 880 maunds of sugar worth Rupees 5,550, 13 annas was received at Calcutta from Ghazipur destined for London by the ship Boyd.²⁷⁰ Other volumes of the *Bengal General Journal* relating to other years show further export of this article from Ghazipur. The export of cotton goods too is borne out by the same source, for instance, in 1797, goods worth Rupees 35,938 4 annas 3 pice were sent out of Ghazipur.²⁷¹

The volume of Benaras traffic may be ascertained by the customs dues collected by the English Company for a period of six months from October 1796 to April 1797, which amounted to Rupees 312,120, 15 annas, 11 pice.²⁷² No doubt, this reflects only the minimum trade for the period as it could not include the items that moved in and out of the city unnoticed by or avoiding the English Collector of customs. Since the customs was levied here at two and a half per cent in 1782,²⁷³ the figure above would represent a minimum aggregate of Rupees 1,24,84,839, 12 annas worth of goods handled at Benaras in the course of the said six months.

Some rough idea of the Patna traffic may be formed by the number of *Chaukis*—custom houses—then functioning under the Company's administration during 1770s. *Fattua*,²⁷⁴ *Hājipur*, *Juigree*,²⁷⁵ and *Grand*²⁷⁶ were maintained for levying duties on the imports and exports conveyed by boats. *Sultāngunj Chauki*

²⁶⁷ *E. I. Sugar*, 137. ²⁶⁸ *Ibid.*, 104. ²⁶⁹ *Ibid.*, 137.

²⁷⁰ *Bengal General Journal*, 1796-97, Range 176, Vol. 43, p. 470.

²⁷¹ *Ibid.*, Vol. 45, p. 84.

²⁷² *Ibid.*, Vol. 43, p. 503. ²⁷³ *Papers*, I, 299.

²⁷⁴ According to G. Md. Khan it was 16th halting station on the way from Murshidabad to Patna. There was a large bridge used by the travellers and caravans. Each traveller had to pay one pice and each conveyance four pice in order to cross the bridge. See G. Md. Khan, f. 62b.

²⁷⁵ *B. B. of Commissioners Customs, Appendix 2*, Range 95, Vol. 15, see under 14th July 1773.

²⁷⁶ *Ibid.*, see under 15th December 1773.

checked and charged all goods moving westwards in and out of Patna by land.²⁷⁷ Similarly the *Sadargunj Chauki* was reserved for checking and charging on the city's transactions with the south. *Kundymahal* acted as the custom house on the private trade of Manji Jas, whereas at *Dāudi Chabutra* duty was collected on small parcels brought for sale (from the countryside ?). No details relating to *Pallegah Chauki*²⁷⁸ are available. *Badārgunj Chauki* is referred to only as taking "account of all goods coming in or going out of the city."²⁷⁹ Regular functioning of these custom houses may be ascertained by the list of regular staff employed in them and the expense that the Company incurred in maintaining them. One of the two principal custom houses,²⁸⁰ employed fifty men on its staff, kept six boats at a total cost of Rupees 757, thirty peons at Rupees ninety used to be posted at gates, wickets, Dutch and French factories and the Company also had to pay Rupees 600 as the *gunj* charges.²⁸¹ The other *chauki* had fortyfive men in its establishment at a total cost of Rupees 652, 14 annas.²⁸² The rest of the *chaukis* appear to be relatively of minor importance; in all they engaged seven *dūroghas*, two *jamadārs*, eleven *moharrirs* (writers) and 198 peons, paying them a sum of Rupees 731. The *Dāudi Chauki* had four *pulwar* boats in addition to other establishment liabilities.²⁸³ Boats occurring so frequently in our narrative were, according to Martin, plied by men who combined three other jobs, depending on circumstances, fishery, catechu-making in forests or being employed as labourers to reap barley or wheat harvests.²⁸⁴

Industries: Several industries flourished in both the cities, Patna and Benaras; among them textiles figure as the principal one. In fact, Benaras was noted since antiquity as the seat of

²⁷⁷ Ibid., see dated 14th July 1773.

²⁷⁸ Ibid. ²⁷⁹ Ibid.

²⁸⁰ Ibid. These bear no names, and are given under two different dates, which fact may make them appear as one and the same. But the difference in the details of establishment make them look like "two separate *Chaukis*."

²⁸¹ B. B. of Commissioners Customs, Appendix 2, Range 95, Vol. 15, dated 15th December 1773.

²⁸² Ibid., see dated 14th July 1773.

²⁸³ Ibid. ²⁸⁴ Martin, I, 228.

the manufactures of the finest cotton cloth.²⁸⁵ Later on, during our period, Abul Fazl, Ralph Fitch and Pelsaert mention varieties of cotton goods produced there as *Jholi*, *Mihrkul*,²⁸⁶ and "great store of cotton cloth and shashes for the Moor,"²⁸⁷ kinds of girdles, turbans and *saris*.²⁸⁸ Indeed, the quantity and quality of its fabrics impressed Manrique to such an extent that he attributed the "very richness of Benaras to its abundant production of very fine cotton cloth which was being continuously woven on 7000 looms in the town itself and in its suburbs."²⁸⁹ The evidence of '*Ajā'ib i Duniya*' bears out the same view as that of Manrique that the enormous production of several varieties of cotton goods constituted the chief wealth of the city, attracting a large number of foreign merchants for its purchase.²⁹⁰ Tavernier too attests to the presence of large numbers of weavers-cum-sellers at Benaras who sold their cotton and silken stuff in two large galleries,²⁹¹ presumably serving as a cotton cloth bazar or *bazāza*. Again, Mrs. Kindersley²⁹² and Ghulam M. Khan during the last decades of our period testify to the presence of a considerable number of weavers in the city,²⁹³ which observations may be taken to establish that the textile industry of Benaras continued to thrive during the entire course of our period.

At Patna, however, this industry appears less conspicuous. Moreover, while the abundance of cotton goods collected from its suburbs cannot be gainsaid, it is not comparable with Benaras in regard to either their quality or varieties produced. Only rather coarse muslin—*amerteas*—in three grades : *Rasseyes*, generally coarse and worth not more than Rupees 2 a piece of 13 yards by half a yard ; *Zafarkhāni*, finer and priced from Rupees 2 to 6 a piece of 13 yards by 3/4 yards ; and *jahāngiri*, the best of the three and of full one yard's width.²⁹⁴ Another variety of cotton known as *alejāhs* was being produced in "infinite quantities" and it was usually bought up by the Central Asian

²⁸⁵ Kautilya, quoted by J. C. Ray, *J. B. O. R. S.*, 1917, Vol. III, Part II, p. 207.

²⁸⁶ *A.A.* II, 169. ²⁸⁷ R. Fitch, Ryley, 103.

²⁸⁸ Pelsaert, 7. ²⁸⁹ Manrique, II, 146. ²⁹⁰ '*Ajā'ib*', 185b.

²⁹¹ Tavernier, I, 118. ²⁹² Kindersley, 105.

²⁹³ G. Md. Khan, 53a.

²⁹⁴ *E.F.* 1618-21, 213.

merchants for the markets in Persia. Its pieces measured $5\frac{1}{4}$ by a little more than $3\frac{3}{4}$ coveds.²⁹⁵ The English factors who were mainly interested in the *amertees* declared that they could provide about 20,000 pieces annually.²⁹⁶ *'Ajā'ib i Duniya* refers to another variety *mercool* as being manufactured here.²⁹⁷ This variety frequently occurs in the Portuguese and English Companies' transactions.²⁹⁸ Manucci, again, bears out the production of "white cotton cloth",²⁹⁹ but the *Khulāsat ut Tawārīkh* simply relates that the varieties of cotton cloth were woven in the province.³⁰⁰ Similarly, Mrs. Kindersley's contention is the same that "a coarse sort of painted calicoes, figured table linen and some very ordinary wrought muslin" was produced at Patna.³⁰¹ But she also adds the manufacture of carpets here.³⁰² The English factors had introduced the winding of Bengal silk here³⁰³ and succeeded in expanding their *kārkhana* to the extent of employing 100 winders,³⁰⁴ but eventually they had to give up the enterprise as their own resources proved inadequate.³⁰⁵

The varieties of cotton goods produced at Benaras were, on the other hand, excellent, both of cotton and silk; some of them were bordered with gold, silver and silk threads. In view of Abul Fazl's and Pelsaert's testimony there seems to have taken place an advance in the city's manufacture as all the subsequent writers agree to the excellent quality of its stuffs,³⁰⁶ till the close of our period. Indeed, even later W. Hoey observed that *kamkhawāb* or brocade was extensively manufactured at Benaras.³⁰⁷

Other industries flourishing at Benaras were the manufacture of brass and copper utensils,³⁰⁸ sugar³⁰⁹ and in the eighteenth

²⁹⁵ Ibid., 197.

²⁹⁶ Ibid., 205; also pp. 199, 258; E.F. 1651-54, 52.

²⁹⁷ *'Ajā'ib*, 185a.

²⁹⁸ See Chapters on Cotton Textiles.

²⁹⁹ Manucci, II, 246.

³⁰⁰ *Khulāsat*, 38. ³⁰¹ Kindersley, 101. ³⁰² Ibid.

³⁰³ E.F. 1618-21, 193-94. ³⁰⁴ Ibid., 197-98. ³⁰⁵ Ibid.

³⁰⁶ Manrique, II, 146-47; *'Ajā'ib*, 185b; Tavernier, I, 118; G. Md. Khan, 53a; *Shah 'Ālam Nāma*, p. 70-71.

³⁰⁷ Mohammad Faiz Bakhsh, *Memoirs of Delhi and Faizabad*, tr. W. Hoey, Allahabad, 1888, Vol. II, 51 n.

³⁰⁸ Pelsaert, 7. ³⁰⁹ See Chapter VI.

century, opium.³¹⁰ Boat building also seems to have occupied a position in the industrial sector of the city, as in 1770 the Raja supplied seventy boats to the English (at their request) from the district.³¹¹

At Patna the curing and bleaching of the calicoes, *amertees*, collected from the vicinity was carried on.³¹² The manufacture of paper is noted here since the days of Abul Fazl and continued till the end of the 18th century.³¹³ Similarly gilded glass was made here as is borne out by a series of indigenous authorities.³¹⁴ As regards sugar making while the earlier authorities attest to its existence in the province,³¹⁵ the later sources categorically state that it was deficient in this article. Some jaggery was certainly manufactured for the local consumption but sugar was mainly imported.³¹⁶ P. Mundy mentions indigo making at Patna³¹⁷ which is, however, not supported by any other authority. Vermilion making is attested by '*Ajā'ib i Duniya*,³¹⁸ and its reference afterwards by the English Companies may be taken as corroborative evidence for the existence of the industry in the town. Earthenware goods,³¹⁹ bucklers and bows made of buffalo skin and horn³²⁰ and gumlac of Patna³²¹ also enjoyed a wide repute. Since the 17th century saltpetre making had become one of the principal industries of the town as has been discussed above. Opium though manufactured here since the early days of our period,³²² blossoms forth as the principal and most lucrative concern of the British during the last half of the 18th century as has been seen in the foregoing pages.

Inns : Unlike the capital cities material relating to inns and caravan serais at Patna, excepting the one which was situated near Jafar Khan's garden³²³ is disappointingly scanty. But from the vast commerce of the city entailing a large body of business-

³¹⁰ See above.

³¹¹ *Persian Correspondence*, III, 15, 22, 30.

³¹² *E.F.* 1618-21, 193.

³¹³ *A.A.* II, 164; *Khulāsat*, 38; *Bahjat*, 243; *Haqiqat*, 46b.

³¹⁴ *A.A.* II, 164; '*Ajā'ib*, 185a; *Khulāsat*, 38; *Bahjat*, 245; *Mīr'āt*, 67; *Haqiqat*, 46b.

³¹⁵ *A.A.* II, 164; '*Ajā'ib*, 185a; R. Fitch, Ryley, 110.

³¹⁶ See Chapter VI. ³¹⁷ Mundy, II, 156. ³¹⁸ '*Ajā'ib*, 185a.

³¹⁹ *Ibid.*, Manucci, II, 246. ³²⁰ Mundy, II, 170-71.

³²¹ *Ibid.*, 156. ³²² R. Fitch, Ryley, 110. ³²³ *S. Mutākherīn*, I, 41.

men coming from outside, it seems reasonable to infer that adequate arrangement must have existed for their accommodation. The inference is further supported by Manrique's statement that the city "offered all kinds of amcnities" to its inhabitants permanent or transient.³²⁴

The inns of Benaras pass equally unnoticed by our authorities, with the one exception of Tavernier, who observed that it had several serais large and well built.³²⁵ Apart from the usual travellers and itinerant merchants, it also needed accommodation for the trains of pilgrims crowding the city.³²⁶ Some of the pilgrims might have passed their time by the side of the river or thereabouts,³²⁷ but others must have stood in need of accommodation, which was presumably being provided by the inns, caravan serais or the residential parts of some of the temples.

Composition of Population : Patna was merely one of the forty six *mahals* of the Bihar sarkar during Abul Fazl's time and had no importance beyond that. But when the city sprang into prominence it also became the provincial capital so that it was the seat of the Mughal subedar on his *nā'ib* till 1765³²⁸ and thence of the English agents deputed from Bengal. The Mughal subedars had their court, contingents, and officers, each of whom in turn had a smaller contingent and army of his own dependents along with their numerous hirelings—the entire arrangement being modelled on the imperial pattern at Delhi. Thus the subedars had in their train a long list of personnel. These constituted a considerable proportion of the total urban population and were also the chief consumers of the city. Their requirements in services, provisions, water supply and other essentials had to be catered for by the city, which fact, in turn, would lead to an influx of those who could in any way satisfy some of these demands. Thus the presence of the subedar at Patna resulted in a great traffic of men and merchandise. But as he was a provincial incumbent, a *kotwāl* used to be appointed for the administration of the city. He too evidently carried his staff and dependents with his office.

³²⁴ Manrique, II, 140. ³²⁵ Tavernier, II, 118. ³²⁶ See below.

³²⁷ *Haqiqat*, 44a-b.

³²⁸ For the names of some of the Mughal subedars at Patna see C. C. Brahman, f. 59a.

The exact date on which Patna was officially acknowledged as an important town deserving a *kotwāl* is not certain. But it is evident from the lukewarm admission of De Lact regarding Patna as being a large town in 1631³²⁹ and from Manrique's (1629-41) acclamation of its being "one of the biggest towns of the Mughal empire and very wealthy", with a population of 200,000,³³⁰ that Patna must have attained its new position sometime during the second quarter of the 17th century. However, as the duties of the *kotwāl* included the general security of the city by police patrolling, maintenance of registers of houses and frequented roads, implementation of general Imperial Orders and the general welfare and proper management of the city,³³¹ he had to keep a considerable staff under him. This entire staff headed by the *kotwāl* would, again, be a part of the principal consumers of the city. These coupled with the men in the subedar's employ must have so swelled the population as to change the character of the city.

The English, after occupying Patna, maintained their deputy here. Their form of administration was not at all on the same pattern as that of the Mughals. Though they had no courts like their predecessors, the English too had their executive staff to run the administration and contingents to maintain law and order in the city. Besides, a host of men were attached to their commercial transactions. A mint too had been established at Patna.³³² Thus the passing of Patna into English hands did not adversely affect the city's importance, population and administration. It is, however, possible that the older set of city inhabitants might have been dislodged to make place for the new, but the city in general presumably remained indifferent to such changes.

Benaras, on the other hand, was already a town of recognised importance at the beginning of our period. Abul Fazl called it a large city³³³ and as such it may be inferred that a *kotwāl* was already stationed there during his time. Thus in the absence of

³²⁹ De Lact, 77. ³³⁰ Manrique, II. 140.

³³¹ For a detailed study of his duties see *A.A.* II, 41-43.

³³² *Bengal General Journal*, 1795-96, Range 176, Vol. 41, p. 403; also see *Muzaffarpore Old Records*, p. 27.

³³³ *A.A.* II, 158.

a subedar, the administrative hierarchy under the local *kotwāl* must have been relatively on a modest scale.

The situation, however, changed with the assumption of authority by the local rajah Mansaram, sometime during the middle of the 18th century. The existing city had been "wondrous populous"³³⁴ with narrow streets,³³⁵ and lofty buildings.³³⁶ Perhaps it was with a view to allowing further urban expansion that the succeeding rajah, Balwant Singh, in 1770 ordered a new city across the river to its south.³³⁷ It was named Ramnagar and adorned with buildings.³³⁸ The rise of the city into a new semi-independent monarchy lent it a political importance, which in the terms of the city, implied larger court and contingent with its army, staff retainers and dependents. This in turn would further attract batches of service men from the suburbs. Admittedly we have no population figures for this period, but it seems reasonable to presume that the change in the political status of Benaras with all its implications, brought the city to a new peak of populousness.

As is quite evident from the busy traffic of commerce at Patna, a large number of big and petty, indigenous and foreign merchants resided in the city, as has been seen earlier. The merchant community of Benaras was also considerably wealthy³³⁹ and occupied a special position in the city's social set-up. The *khattris* and the *baniyas*—castes of businessmen—were reckoned as some of the chief classes amongst the Hindus,³⁴⁰ and they were also the real patrons of Hindu scholars and teachers.³⁴¹ Since no separate reference to bankers is found, it is possible that most of these merchants combined the money-lending and banking functions as well. Professional bankers were perhaps too few here to attract the notice of the earlier writers, but later on two bankers of the company are mentioned by name, Gopal Das Sahu³⁴² and Sadanand³⁴³. There are also instances of this later period where financiers advanced sums of money to the raja,

³³⁴ Mundy, II, 122.

³³⁵ Ibid., Tavernier, I, 118.

³³⁶ Tavernier, I, 118.

³³⁷ *Hadiqat*, 122a; *Āftābnumah*, 243b-244a.

³³⁸ *Hadiqat*, 122a; *Āftābnumah*, 244a.

³³⁹ *ʿAjāʾib*, 185b. ³⁴⁰ Mundy, II, 122.

³⁴¹ Bernier, I, 334. ³⁴² *Persian Correspondence*, V, 501.

³⁴³ Ibid., 304.

though they were still called merchants.³⁴⁴ On the other hand, at Patna, the bankers had established themselves while the city was still in its embryonic stage as discussed earlier.

The activities of the *sarāfs* of Patna must have greatly extended with the progress of commerce in the city. Numerous legal tenders brought into the city needed the services of the *sarāfs* to convert them into local current coins, for which they were allowed a certain discount.³⁴⁵ With the establishment of mint at Patna their trade must have been further stimulated. At Benaras their services in the mint were required from the early days of our period. It is unfortunate that *Papers Relating to India*, while recounting all the details of the Benaras Mint from 1776 to 1780³⁴⁶ (inclusive) omits to mention the *sarāfs*. Two *sarāfs* of Benaras, Brij Chand Das³⁴⁷ and Bishan Das,³⁴⁸ are however, mentioned in the *Persian Correspondence*. Both of them seem to have been men of substance and some standing as indicated by the fact that the emperor had allowed them to run up an arrear of Rupees twenty eight thousand.

The Patna *gumāshthahs* or brokers of various grades have been discussed earlier. They were to be found at Benaras too;³⁴⁹ though the evidence relates to the later period, their forefathers too must have performed the same jobs.

Accountants and writers were largely employed by business concerns in order to maintain accounts of their transactions. For example, the English factors used to engage them for every branch of their activities.³⁵⁰ Individuals too were obliged to engage these *baniās*, as they were the medium through whom the employer could handle money, the disbursement of salaries to troops, purchase or sale of merchandise, hire of other servants for the family or the supply of provision.³⁵¹ Their salary varied from Rupees ten to hundred, depending upon the status of the employer. Sometimes these were substantial men in their own right, using their employer's rank to transact business of their own and were quite often in a position to lend money to

³⁴⁴ Ibid., III, 30.

³⁴⁵ Bolts, 204. ³⁴⁶ *Papers*, I, 208-232.

³⁴⁷ *Persian Correspondence*, V, 499. ³⁴⁸ Ibid., 503.

³⁴⁹ Ibid., III, p. 22.

³⁵⁰ *B.B. of Commissioners Appendix 2*, Range 95, Vol. 15.

³⁵¹ Kindersley, 128; Bolts, 84.

others, their employers included, at nine or ten per cent interest.³⁵² Indeed, some of them maintained palanquins, horses and numbers of servants of their own.³⁵³ Evidently, they used their employment as a means to promote their sideline business, which was, in fact, their primary concern. The same *baniās* when employed by top-ranking men such as governor or some *amir*, were called *Diwāns*. Thus the rather bright prospects induced a large number of people to take to this profession, so that, complains the anonymous author, their quality suffered.³⁵⁴ The English, however, do not seem to have been dissatisfied as regards their competence; indeed, if Mrs. Kindersley's opinion represents the feeling of general Englishmen, they found the *baniās* embarrassingly smart.³⁵⁵ The minimum salary allowed to these writers and *baniās* at the Patna custom houses ranged from Rupees ten to thirty.³⁵⁶

Carriers too were available at Patna for the transportation of goods. Our evidence pertains mostly to the long-distance carriers as covered earlier, but it is apparent that there must have been a large number of those who could perform such jobs within the city.

Employment of domestic servants in large numbers was a common feature of urban society in our period. Abundance of people willing to serve as domestics explains the reason why, for instance, a *darbān* could not do a *huqqah bardār's* job and vice versa. No doubt, it is generally attributed to caste system as Mrs. Kindersley does, that "the caste system in India leads the English to engage three times the number of servants than is necessary,"³⁵⁷ but the basis of the system, amongst other factors, could not but be the easy availability of workers for all kinds of jobs. Mrs. Kindersley enumerates eighteen servants required for an Englishman's household, namely *baniā*, butler, *khān i samān*, *kissamgārs* (*khidmatgārs* ?), *peadars*, bearers (some of them serving as *mash'alchis* or torch-bearers as well), a

³⁵² Kindersley, 130; also see Bolts, 84, though he does not give the rate of interest.

³⁵³ Kindersley, 130-1. ³⁵⁴ *Ilm i Navis'indigī*, 66a.

³⁵⁵ Kindersley, 129-30.

³⁵⁶ *B.B. of Commissioners Appendix 2*, Range 95, Vol. 15.

³⁵⁷ Kindersley, 282.

cook with at least one assistant, a groom, a grass-cutter per horse, a *huqqah bardār*, sweeper, slave girls in the female departments, nurses, a gardener, a *bhishti* (water-carrier), tailors, *dhobi* (washerman), *durbān* and sometimes *chobdārs*.³⁵⁸ Some of these used to be more than one at a time, such as nurses, bearers or cooks. Indians of the same status would naturally tend to employ more than Mrs. Kindersley's Englishman, partly because of convention and habit and partly owing to the fact that they might get their servants at relatively lesser wages. Mrs. Kindersley's *khan i samān* or cook received Rupees ten to thirty a month, while the menials' wages varied from Rupees three to four³⁵⁹ which could not have been the lowest wages, considering the times. It was usual for this class of domestics to demand higher wages from the foreigners. These men were usually provided with lodgings within the compound of their master's house, but some of them such as *baniās*, writers or tailors might be scattered in the city.

Artisans formed a very considerable bulk of the population in both the cities of Patna and Benaras. Their number in each occupation varied in proportion to the diffusion of any particular industry in either of them, but the aggregate could not have been small, because, apart from the principal industries touched upon earlier, almost all the usual crafts such as metal work, carpenters' work, soap-making, building, leather goods and so on, were practised in all the major towns of Hindustan. Some of these crafts, in the course of time, got more pronounced in some places embodying a larger number of hands than in others. But these produced primarily for the external markets while the usual human needs had to be met locally. Therefore, while considering the total number of artisans, we have to bear in mind the existence of these less known ones as well. At Benaras weavers are attested to have been in very large numbers.³⁶⁰ There was a street called *katra resham* or silk bazar,³⁶¹ wherefrom we may infer that men connected with the silk trade formed the bulk of the inhabitants.

Intelligentsia : Patna was not then reputed for its intellectual talents. However, in view of the general regard and desire for

³⁵⁸ Ibid., 283-86. ³⁵⁹ Ibid., 286-87.

³⁶⁰ Kindersley, 105. ³⁶¹ *Balwant nāmāh*, 136.

learning and also the high position of the city since the 17th century, we may reasonably presume that there must have existed *maktabs* and *madrasahs* (schools and colleges) for the benefit of those who wished to educate their children.

Again, there does not seem to have been any particular religious sanctity, either Muslim or Hindu, attached to Patna. Nevertheless, here as elsewhere in Hindustan, some noteworthy divines had lived, preached and were buried. (The tombs are held in great veneration amongst the Muslims in general, but the uneducated Indian masses often carried their sentiments to the point of worship.) The shrines of Sheikh Yahya Munīr³⁶² and Munīm Darvesh³⁶³ were the most notable among the popularly venerated tombs.

Benaras, on the other hand, has been throughout the ages a great centre of Hindu learning.³⁶⁴ No doubt, Muslim *madrasahs* too must have existed here, as among other circumstances may be inferred from the fact that a Hindu poet of Persian, Jagat Singh flourished in the city whom the Nawab Vizier of Lucknow had entitled the "nightingale of India."³⁶⁵ But the most significant aspect of the intellectual attainments of Benaras was Sanskrit scholarship. Here Sanskrit institutions were not elaborately or formally organised, for Bernier states that "there are no colleges or regular classes, the masters are dispersed all over the town and principally in the gardens of suburbs which the rich merchants permit them to occupy. Each master has four to twelve or fifteen students under himself for ten to twelve years."³⁶⁶ Thus the Brahmans, the chief Hindu caste devoted to learning, abounded in the city.³⁶⁷ Assiduous Hindu scholars from the most distant parts, flocked to Benaras in order to seek instruction from these learned teachers.³⁶⁸ Fittingly enough a large (public ?) library of Sanskrit books is also mentioned at Benaras.³⁶⁹ Jagat Singh had his own "excellent Persian library"³⁷⁰ and so, one presumes, had many others.

³⁶² C. C. Brahman, 59b. ³⁶³ *Hadiqat*, 109b.

³⁶⁴ A.A. II, 158; *Khulāsat*, 28; *'Ajā'ib*, 185b; Kindersley, 104-5; *Haqiqat*, 44a; *Hadiqat*, 122a; Srivastava, II, 347; Hodges, 59.

³⁶⁵ Davis, *Vizier Ali Khan*, Benaras, 1938, p. 50 n.

³⁶⁶ Bernier, I, 334.

³⁶⁷ Mundy, II, 122; *'Ajā'ib*, 185b; Kindersley, 104-5; *Haqiqat*, 44a.

³⁶⁸ A.A. II, 158. ³⁶⁹ Bernier, I, 335. ³⁷⁰ Davis, 50 n.

Even so, learning and academic pursuits of the city are nothing when compared with its deep sanctity to the Hindu masses :³⁷¹ the former, in fact, seems to be an offshoot of the latter. From the earliest times the city has been pre-eminently a place of Hindu pilgrimage.³⁷² R. Fitch devotes several pages to describing the mode of worship practised at Benaras.³⁷³ Bathing in the river Ganges at Benaras constitutes one of the tenets of Hindu religion,³⁷⁴ and a large mass used to assemble there in order to perform their religious rituals. More than four hundred temples were to be found within the city.³⁷⁵ Many of these temples were built along the river with a view to serving as embankments,³⁷⁶ and their closeness to the river must have proved very convenient to the bathers. A large number of people lived by exploiting the beliefs of the weak-minded Hindus.³⁷⁷ The constant pouring in of multitudes of Hindus within the city must have occasioned considerable commercial traffic, besides attracting large numbers of servicemen from the suburbs in order to meet their requirements.

Mosques were also found in the city.³⁷⁸ In the adjoining part of the main town there were some tombs³⁷⁹ which would attract Muslim masses.

General : Right from the beginning Patna, like Agra, gave the impression of being longer than broader.³⁸⁰ With the passage of time as it prospered it went on extending lengthwise,³⁸¹ until by the last decades of the 18th century the city with the suburbs stretched over five miles along the river bank.³⁸² Moreover, while the earlier reports make out the city large and spacious,³⁸³ later

³⁷¹ C. C. *Brahman*, 68b ; Manrique, II, 146 ; for the holiness of Kashi, (Benaras) A. L. Basham, p. 539.

³⁷² A.A. II, 158 ; *Khulāsat*, 28.

³⁷³ R. Fitch, Ryley, 103-09.

³⁷⁴ *Haqiqat*, 44a. ³⁷⁵ Manrique, II, 146.

³⁷⁶ *‘Ajā’ib*, 185b ; Hodges, 60.

³⁷⁷ *Hadiqat*, 121b. ³⁷⁸ Tavernier, I, 118 ; Forster, I, 31.

³⁷⁹ Tavernier, I, 118. ³⁸⁰ R. Fitch, Ryley, 110.

³⁸¹ De Laet, 77 ; Bowrey, 221-22 ; Tavernier, I, 121-22 ; Hodges, 44 ; Kindersley, p. 100.

³⁸² Kindersley, 100.

³⁸³ R. Fitch, Ryley, 110 ; A. Latif, *J. B. O. R. S.*, V. Part IV, p. 599 ; De Laet, 77 ; Bowrey, 221-22 ; Tavernier, I, 121-22 ; Manrique, II, 140 ; *Khulāsat*, 35 ; *Hadiqat*, 109b.

writers, such as Hodges, complain of overcrowding and narrowness,³⁸⁴ an obvious pointer to large increase in population. The absence of usual embellishments in the city may be ascribed to its non-polished character. As has been seen, the city waxed with its commerce and eventually grew important enough to draw the attention of the rulers, who in the middle of the 17th century made it the provincial capital. The city indeed won recognition by its sheer commercial merit. However, even afterwards no governor seems to have taken any personal interest in laying out gardens, building magnificent mosques, mausoleums and other edifices. The houses were generally covered with tiles³⁸⁵—*khaprail*—or bamboo thatch when made of mud.³⁸⁶ The brick-built houses too appeared gradually in the city, but even then the majority remained of thatch, bamboo or tiles. These latter ones were liable to catch fire easily³⁸⁷ and several incidents of conflagration causing considerable loss of property and even life are on record.³⁸⁸ In fact, wood-covered structures were quite in vogue in Bihar; Abdul Qadir Badaoni found some such houses—called *chhapparband*—valued at as high a price as thirty to forty thousand rupees.³⁸⁹ When high, brick-built houses were erected,³⁹⁰ the narrow³⁹¹ and unpaved streets gave the city a miserable appearance.³⁹² The fort³⁹³ too was built of brick,³⁹⁴ but there does not seem to have been any special feature about it to attract a visitor's notice. However, it must have proved useful for defence purposes as no city wall is mentioned.

Benaras has been represented as a large town from the beginning of our period.³⁹⁵ Finch noticed its circuit to be eight to ten *kos*.³⁹⁶ The population was dense to the extent of making the city overcrowded and congested, a fact which was aggravated

³⁸⁴ Hodges, 44. ³⁸⁵ *Khulāsat*, 35; *Haqiqat*, 46b.

³⁸⁶ De Laet, 77; Tavernier, I, 122; Kindersley, 100, 102.

³⁸⁷ Kindersley, 102.

³⁸⁸ *Ibid.*, 102-03; *Persian Correspondence*, V, 434; Newsletters of the Imperial Court, Sarkar, *J.B.O.R.S.*, 1931, XVII, p. 351.

³⁸⁹ Badaoni, II, 185. ³⁹⁰ Hodges, 44. ³⁹¹ *Ibid.*

³⁹² Kindersley, 100.

³⁹³ *C. C. Brahman*, 69a; '*Ajāib* 185a; Hodges, 44.

³⁹⁴ *A.A.*, II, 154.

³⁹⁵ *Ibid.*, 158; R. Fitch, Ryley, 103; De Laet, 72.

³⁹⁶ W. Finch, Foster, 177.

by high buildings, sometimes with as many as seven or eight storeys,³⁹⁷ and narrow streets.³⁹⁸ Though the narrow and at times winding streets spoiled the appearance of the city besides being inconvenient,³⁹⁹ they served as a good security measure.⁴⁰⁰ Like Patna some of the Benaras streets were unpaved,⁴⁰¹ rendering them unclean and full of mud and mire during the rains.

But the city had a fine sky line. It was crammed with temples built with pious care and great expense. Emperor Aurangzeb's mosque is a beautiful piece of architecture and stands out gracefully by the bank of the Ganges. Other structures were also erected by the side of the river,⁴⁰² as well as within the city. The houses of the Hindu merchants, situated mostly on the outskirts of the city, were large and well built with equally well kept gardens and courtyards.⁴⁰³

³⁹⁷ Srivastava, II, 346-7.

³⁹⁸ Tavernier, I, 118; Hodges, 61.

³⁹⁹ Tavernier, I, 118. ⁴⁰⁰ Davis, 16.

⁴⁰¹ For paved streets see Mundy, II, 122; for unpaved ones see Kindersley, 106.

⁴⁰² Hodges, 60. ⁴⁰³ Bernier, I, 334; Hodges, 61-2.

CHAPTER IV

COTTON TEXTILES

FROM the foregoing review of some of the urban centres in Hindustan during the Mughal rule it is abundantly clear that, with political tranquillity in the background, it was the industries and commerce that had rendered their position viable. As cultivation was the backbone of village economy, industries constituted the main source of producing and earning wealth requisite to the sustained growth of towns and cities. The presence of courts and camps, either of the monarch or his officials, was only an additional factor in stimulating production at places wherever they might be stationed at any given time.

Since the relative significance of industry and trade in the case of each city or town has been discussed earlier, we may now proceed to consider some of the most important individual industries. Amongst those that occur most frequently in the towns and cities of our region are textiles and its allied industries, sugar and metalware. Paper and salt will also be covered here, though the manufacture of paper does not appear to have been anything like universal, or that of salt by any means urban. Nevertheless, these two have been included because paper was almost an entirely urban industry, its production was essential for the proper functioning of the state, and it figures largely in the routine life of these cities. The reason for including salt is that it is a necessary ingredient of human diet.

Textile, however, was the most important of all industries. Cotton, silk, wool and hemp yarns were being woven into fabrics but silk and wool did not enjoy a fraction of the ubiquity of cotton. Sacks and sack cloths are undoubtedly mentioned in the local contemporary sources,¹ and the cultivation of hemp was being carried on in almost all the *sarkars* of our region, as may be judged from the *Ā'in-i-Akbari*,² but beyond this little is known about it. But we are perhaps not missing much for, by nature of its limited consumption, it could never have occupied a significant

¹ *A.A.* 11. 136; *Fatāwa*, 267. ² *A.A.* 11. 78, 81, 83, 86 and 88.

position in the industrial life of the past. The silk industry was concentrated mainly at Lahore and Agra and later on, consequent upon their decline, at Benaras, where a nucleus of the industry that had already existed, was then expanded. An important factor in the growth of the industry at Benaras was the easy availability of raw silk from Bengal, which continued unabated even after the latter had capitulated to the English. Within our region woollen goods were being produced chiefly at Lahore. It is possible that some minor woollen industry flourished in other parts as well. Buchanan, for example, mentions 'blanket weaving at Patna at a minimum average value of twelve annas each,'³ and wool is known to have been used in carpets at Agra and elsewhere.⁴ Pure woollen carpets too were being manufactured at Jaunpur, Zafarawal⁵ and many other places. Nevertheless, these could have been of only local significance. While their manufacture did exercise a direct bearing on the economy of the place of their origin, their significance fades when the region is taken as a whole. It, therefore, appears more suitable to cover these industries while treating the places where they occurred.

On the other hand, the cotton textiles industry was universal, topping the list of all manufactures within our region during the Mughal era. No city, town, *paraganah*, *casbah* or village seems to have been devoid of this industry. In fact, as many as thirty two major centres of cotton production are noticed in the sources, and not infrequently we find that the movement in the level of towns corresponded with the movement in the magnitude of output of cotton goods, as with Sirihind, Khairabad or Daryabad. Thus, the cotton textiles industry, by virtue of its general diffusion and the extent of its production, came to exercise a direct impact on the economy of our entire region, a fact which was further accentuated by its very essential character, as clothing constitutes the second basic need of mankind. In the tropical climates cotton fabrics are a necessity and silken and woollen stuffs a luxury—a factor which ensured a steady, and with the multiplication of the population, a growing demand for cotton fabrics both within the country and abroad. In practice, it implied that these were the principal sources of earning foreign exchange or constituted the medium

³ Buchanan. II, 657. ⁴ A.A. 1. 88. ⁵ A.A. II. 169.

for increasing the aggregate wealth of the region under review. All cloth fabricated in excess of local requirements was so much foreign money assured.

Evidently it was the realisation of its basic character and its profound effect on the economy in general that had always led the Mughal emperors to undertake measures calculated to directly encourage this industry. Even as late as 1770, the East India Company's historian, R. Orme, commented that "cloth being the staple manufacture of India and trade in general is better encouraged here than in other despotic states; cloth happens to be one of the greatest resources of public revenue."⁶ Therefore, unlike the silken and woollen textiles, cotton textiles have been treated separately.

Direct written evidence reveals innumerable major urban centres producing miscellaneous cotton goods. Beginning from the subah of Lahore, we have Lahore city itself producing cotton fabrics,⁷ ormesins,⁸ and a quantity of white cotton goods.⁹ From 1646 onwards the Machhiwara baftas of finer quality were in demand by the East India factors.^{9a} Subsequently the industry seems to have expanded here for the *Haqiqat Hā'i Hindustan* enumerates seven varieties amongst its productions.¹⁰ Similarly, Sialkot as a textile manufacturing centre is first observed by Sajjan Rai, according to whom apart from other local varieties, the embroidered stuffs alone were sold for Rupees one lac every year.¹¹ Even during the Sikh anarchy the local industry does not seem to have suffered much as both the *Hadiqatul Aqālim*¹² and *Haqiqat Hā'i Hindustan* (in the last decades of our period) testify to the production of a variety of cotton goods here. In fact, the latter source lists eight varieties excluding the embroidered ones.¹³ Gujrat, in the same subah surpassed even Sialkot in the output of the embroidered stuffs.¹⁴ By about the last decades of the eighteenth century Bajwara is also noticed as producing quantities of cotton fabrics.¹⁵

In the subah of Delhi, Sirhind produced an assortment of

⁶ R. Orme, *Historical Fragments of the Mughal Empire*, 1783, p. 411.

⁷ *Haft Iqlim*, I, 146a. ⁸ Pelsaert, 9. ⁹ Manucci, II, 424.

^{9a} *E.F.*, 1646-51, 13, 100.

¹⁰ *Haqiqat*, 61a. ¹¹ *Khulāsat*, 95. ¹² *Hadiqat*, 149.

¹³ *Haqiqat*, 634. ¹⁴ *Khulāsat*, 100. ¹⁵ *Hadiqat*, 147.

cotton stuffs.¹⁶ Persian and Armenian merchants frequenting this town were chiefly interested in its red *sālu* and chintz,¹⁷ manufactured there in very large quantities.¹⁸ The neighbouring town of Samana was likewise noted for the manufacture of chintz and other piece-goods.¹⁹ The East India factors used to invest largely in the fabrics of this town, which they generally termed *semianos*.²⁰ Later on, Sultanpur too began to turn out quantities of chintz.²¹ Samana and Sirihind ceased to count in the cotton textile industry after the rise of the Sikhs in the early 18th century. Sirihind became a victim of the contending forces of the Mughals and Sikhs,²² eventually it was sacked and destroyed by the latter in 1749.²³ Later on, the weavers of Sultanpur too took to active service abandoning their looms behind.²⁴ Evidently, by virtue of being the border towns, these were the first and worst victims of the rising disorders.

The capital city of Delhi specialised in the production of chintz and quilts;²⁵ its chintzes are reported to have been inferior only to those of Masulipatam.²⁶ Again, it was the Armenian and Persian merchants who were chiefly interested in this commodity.²⁷ The fabrics of Panipat were of the same measurement as those of Samana and used to be sent to Sirihind and Lahore for the benefit of the said merchants.²⁸ A village Gokul in Muttra produced *guzees*.²⁹

Agra produced large quantities of cloth,³⁰ and carpets (of cotton).³¹ The best kind of cotton stuffs used to be available here for the European traders, especially the Dutch³² and

¹⁶ Manrique, II, 182. ¹⁷ E.F., 1637-41, 134. ¹⁸ 'Ajā'ib, 186a.

¹⁹ Withington, Foster, 227; Roe, II, 447.

²⁰ E.F., 1618-21, 58, 93, 161, 168, 178, 337; E.F., 1622-23, 9; E.F., 1624-29, 93, 149, etc.

²¹ *Hadiqat*, 61a.

²² Sarkar, 'Fall of the Mughal Empire', I, 72, 96-7.

²³ Cambridge History of India, iv, pp. 322-3. Cunningham, A History of the Sikhs, London, 1853, Vol. II, p. 208.

²⁴ Irwin, Later Mughals, I, 99.

²⁵ 'Ajā'ib, 181b; Manrique, II, 180.

²⁶ E.F. 1637-41, 134.

²⁷ E.F. 1637-41, 134; E.F. 1646-51, 335-6.

²⁸ E.F. 1637-41, 34. ²⁹ E.F. 1642-45, 98.

³⁰ R. Fitch, Ryley, 99. ³¹ A.A. I, 55.

³² Dutch Records, 1629-34, Vol. IX, p. cccxviii, 3.

the English.³³ Manucci's report also bears out the abundance of white cotton fabrics at Agra.³⁴ It may be gathered from the testimony of *Haqiqat Hā'i Hindustan* that even during the last decades of the 18th century Agra continued to manufacture cotton goods.³⁵ During this century Najibabad and Barcilly became well-known centres of the cotton industry,³⁶ while Shahjahanpur is noticed for the manufacture of superior kinds of cotton goods.³⁷ Saharanpur had enjoyed wide repute for the excellence of its *chautārs* and *khāsu* since the days of Abul Fazl.³⁸ In Farrukhabad separate quarters were assigned to the Hindu and Muslim weavers,³⁹ and during the 18th century it gradually became one of the chief cotton manufacturing centres.⁴⁰ In Oudh, Lucknow was one of the principal centres of cotton fabrics from the early 17th century and W. Finch had found great traffic in 'linen' here.⁴¹ Pelsaert noted the production of coarse cotton stuffs in Oudh,⁴² English factors were greatly interested in Lucknow's 'mercools' and 'daryabadis',⁴³ though not in its *guzres*.⁴⁴ *Daryabadis*⁴⁵ and *khairabadis*⁴⁶ so much in demand among the European traders were principally produced in Daryabad,⁴⁷ and Khairabad⁴⁸ and that is how these stuffs acquired their names.⁴⁹ Nawgaon in the Hardoi district produced *mercools*.⁵⁰ Similarly Akbarpur and Jalalpur (in the Faizabad district) came to be

³³ E.F. 1618-21, 61, 76, 83; E.F. 1624-29, 93; E.F. 1634-36, 206; E.F. 1637-41, 51, 278, etc.

³⁴ Manucci, II, 424. ³⁵ *Haqiqat*, 42a.

³⁶ Srivastava, *Shuja'ddaulah*, Lahore, 1945, Vol. II, p. 269.

³⁷ G. Md. Khan, 65b. ³⁸ A.A. II, 292; A.A. I, 94.

³⁹ Irvinc, *The Bangash Nawabs of Farrukhabad*, Calcutta, 1878, p. 280.

⁴⁰ Srivastava, II, 369. ⁴¹ W. Finch, Foster, 176.

⁴² Pelsaert, 7. ⁴³ E.F. 1637-41, 278; E.F. 1655-60, p. 270.

⁴⁴ E.F. 1646-51, 299.

⁴⁵ E.F. 1637-41, 312; E.F. 1642-45, 204; E.F. 1646-51, 2, 78; E.F. 1651-54, 52; E.F. 1655-60, 70.

⁴⁶ *Haqiqat*, 154.

⁴⁷ It is not mentioned in the Ain. Moreland says it is in the Barabanki district, see his article Indian Exports in the 17th century, in the *Indian Journal of Economics*, V, part III, 1921, p. 232.

⁴⁸ Abul Fazl says it has 2 mahals and a brick fort, A.A. II, 177, so that it was the relatively old town whose cotton goods became famous in the 17th century.

⁴⁹ Moreland, op. cit., 232. ⁵⁰ E.F. 1651-54, 9-10.

noted for their cotton manufacture⁵¹ during the 18th century. The flourishing state of the cotton industry in Oudh at this period, when the major part of India was in turmoil, may be accounted for primarily by the stability that obtained in the kingdom and also by the prohibitive duties that the Nawabs had imposed on imported goods. Along with the cost in carriage the duties had effectively kept in check any sizable import of cotton goods into Oudh. They had helped to keep the local industries alive.⁵² Consequently, Oudh stuffs used to be exported to Persia, Europe and South East Asia through the port of Calcutta,⁵³ and presumably a smaller quantity to Central Asia by overland routes. After the recalcitrant Sikhs blocked the usual Lahore route the caravans were diverted to Najibabad and Kashmir for destinations beyond Kashmir.⁵⁴ The continued availability of outlets for the Oudh manufactures further stimulated the industry and we find that in 1799 Lucknow was providing 5,000 coats for the Delhi soldiers per imperial order.⁵⁵ In fact, by that time Lucknow was extensively producing a special variety called *Sallam*,⁵⁶ which seems to have been suitable for soldiery, for apart from the above order, it was being forwarded more generally to Delhi and Calcutta.⁵⁷

Jaunpur produced large quantities of cotton carpets,⁵⁸ and other fabrics such as turbans, girdles, and white plain calicoes.⁵⁹ *Haqiqat Hā'i Hindustan* mentions the manufacture of good *jhona* variety here.⁶⁰ At Jalalabad and Mau in the sarkar of Allahabad *jhoni*, *mihirkul*⁶¹ and other varieties⁶² were being produced. Even as late as 1771, the English were intending to send their *gumāshtahs* to Allahabad in order to buy piece-goods.⁶³ *Hadiqatul Aqālim* noted that Shahzadpur used to produce stuff suitable for tents and uses of kindred nature, but as the demand for these goods had declined their production too had been reduced. On the other hand, the chintz and guzees of Shahzadpur had still retained their position.⁶⁴ During the last decades of our period

⁵¹ Srivastava, II, 369, 370. ⁵² Hoey, *Trade*, 28.

⁵³ Srivastava, II, 370. ⁵⁴ See Chapter I.

⁵⁵ *Persian Correspondence*, V, p. 378. ⁵⁶ Hoey, *Trade*, 28.

⁵⁷ *Ibid.* ⁵⁸ Pelsaert, 7; *E.F.* 1618-21, 195.

⁵⁹ Pelsaert, 7. ⁶⁰ *Haqiqat*, 44b.

⁶¹ *A.A.* II, 169; *Khulāsāt*, 30. ⁶² *Khulāsāt*, 30.

⁶³ *Persian Correspondence*, III, 245. ⁶⁴ *Hadiqat*, 126a.

Mirzapur too is attested to have been producing white cotton goods for sale to those who wished to buy them for trade purposes.⁶⁵ At Mau and Jalalabad *jholi* and *mihirkul* varieties were being beautifully woven.⁶⁶ Besides specialising in the above varieties,⁶⁷ Benaras also fabricated 'shashes for the Moor'.⁶⁸ The volume of the local output of cotton goods certainly impressed R. Fitch while he was at Benaras.⁶⁹ Similarly Pelsaert recorded the manufacture here of several varieties such as girdles, turbans, saris and *gangājal*.⁷⁰ Manrique was so impressed with the enormous quantity and excellent quality of its cotton goods that he attributed the richness of the city to these products.⁷¹ The author of '*Ajā'ib i Duniya*' shared Manrique's view that cotton fabrics of Benaras were the principal source of its wealth.⁷² According to Tavernier the weaver-cum-sellers used to fill two large galleries with their stock for sale.⁷³ After a hiatus of several decades, by about the end of the 18th century, Kindersley⁷⁴ and Ghulam Mohammad Khan again testify to the presence of a considerable number of weavers in the city,⁷⁵ which would signify the continuation of the industry without any serious interruption.

While still an insignificant town in the later 16th century, Patna had attracted the notice of R. Fitch as a centre of trade in cotton and cotton goods.⁷⁶ With the advent of European traders at the beginning of the 17th century the industry seems to have been greatly stimulated. *Amertees*, a coarse kind of stuff was largely woven in and around Patna in various grades as is recorded in the Reports of the English factors.⁷⁷ Pelsaert corroborates the production of coarse muslin at Patna.⁷⁸ '*Ajā'ib i Duniya*' refers to another variety, *mercool*⁷⁹ which had perhaps been recently introduced here from Upper India for it does not occur earlier. While Manucci terms its piece-goods as very 'fine white cotton cloth',⁸⁰ *Khulāsātut tawārikh* simply records that various kinds of cotton cloth were woven at Patna.⁸¹

⁶⁵ *Hadiqat*, 668 (Printed Ed.). ⁶⁶ *A.A.* II, 169.

⁶⁷ *A.A.* II, 169. ⁶⁸ R. Fitch, Ryley, 103.

⁶⁹ *Ibid.* ⁷⁰ Pelsaert, 7. ⁷¹ Manrique, II, 146.

⁷² '*Ajā'ib*', 185b. ⁷³ Tavernier, I, 118. ⁷⁴ Kindersley, 105.

⁷⁵ G. Md. Khan, 53a. ⁷⁶ R. Fitch, Ryley, 110.

⁷⁷ *E.F.* 1618-21, 192-3, 213, 270, etc. ⁷⁸ Pelsaert, 8.

⁷⁹ '*Ajā'ib*', 185a. ⁸⁰ Manucci, II, 246. ⁸¹ *Khulāsāt*, 38.

Kindersley's testimony of a 'coarse sort of painted calicoes, figured table linen, some ordinary wrought muslin,' and carpets,⁸² reflects a further expansion of the industry, though the variety still continued to be of inferior quality. The local merchants and traders may not have required superior material. But this trend to expansion, according to Bolts, was checked after 1765 by the establishment of the English monopoly over the trade and production of cotton goods at Patna. The growth of the industry was arrested and it even began to decline.⁸³

This review embraces a very long list of urban centres producing cotton goods during a protracted period, extending to about two and a half centuries. This wide growth of cities and towns as centres of cotton manufacture may be taken as adequate justification for characterising the industry as primarily urban, at least in the region under discussion. Every town or city took to this industry as one of the principal means for multiplying its productive resources. The capital cities or even administrative centres such as Lucknow and Farrukhabad provide evidence of the tendency. As a matter of fact, in some cases the towns were entirely dependent upon this industry, the rise and fall of the town corresponding with the growth and decline of the industry. Samana, Khairabad and Daryabad may be cited as examples. In others, like Benaras or Patna, on the other hand, it occupied a complementary position to their commercial traffic. The relationship between the two—cotton textiles production and commerce—is plain enough. To whatever category the towns belonged, one feature was common among them all: They all produced their special varieties mainly with the object of export. For example, the embroidered goods of Sialkot and Gujrat, the chintz of Delhi and Sirhind, or the plain *amertees* of Patna were all meant for foreign markets. Being located in the cities and towns they naturally commanded a much wider range of clientele, a fact which in itself constituted a cardinal factor in further pushing the industry to a higher level, either by means of augmenting the internal output or by multiplying the centres of production in the adjoining districts or both. Thus, we find, that till the end of the 18th century, textile production was chiefly concentrated around the capital cities, within a radius of about

⁸² Kindersley, 101.

⁸³ Bolts, Chap. XIV.

a hundred miles from each of them, though the industries of far-flung ones like Benaras and Patna continued to thrive and expand.

Chronologically speaking, the study reveals that while the industry was growing steadily during the reign of Emperor Akbar, its real boom begins with the turn of the 17th century. Four factors seem to have been most important in determining its trend in this direction; first, continual peace and stability stretching over a long period; secondly, extension of cultivation of cotton crops; thirdly, freedom of commercial intercourse, including liberal facilities accorded to the foreign traders without prejudicing the rights of the local merchants; and finally, relative safety and conveniences of the main commercial highways. Thus, throughout the 17th century, town after town was being added to the existing centres of piece-goods production. The emphasis was on the western and far eastern regions, the central parts of Upper *doābah* and Oudh not being equally prominent. After the death of Emperor Aurangzeb, however, the position shifts. The centres of the West then began to fall one by one within the threatened zone of anarchy when not hit directly by violence and molestation by troops, until by about the middle of the 18th century, no trace of their erstwhile prosperity remained. Lahore, by virtue of its size and importance, could sustain longer than others but its days too were numbered. Indeed, even eastwards, the situation had become so precarious that the English factors decided to wind up their factory at Agra in 1654, as it was no longer sufficiently remunerative.⁸⁴ On the other hand, in the new principalities of Najibabad, Farrukhabad and Oudh, relatively peaceful administration and careful patronage of the industry by some of their competent, or shall we say, less incompetent rulers, greatly stimulated it either by creating new bases, as at Shahjahanpur, Bareilly, Farrukhabad, Khairabad and Daryabad, or by developing the existing ones, like those of Lucknow or Benaras. The advance of the English from the east towards the west after 1765, affected the industry in an altogether different manner. While their monopoly of trade curtailed the aggregate demand for cotton goods, there was,

⁸⁴ E.F. 1651-54, 281. Here other factors too might have contributed in arriving at this decision such as the Co.'s growing resources on both the western and eastern coasts.

however, no violent departure from the usual course of production. Nevertheless, since the production would be affected by the shrinkage of demand, the growth of the industry came suddenly to a halt, as in Patna. Besides, there were other than local factors which by the last decades of the 18th century began to exercise detrimental effects on the industry, such as the introduction of machine-made goods in England. The export of the mill-produced English goods proved disastrous to the cotton textile industry of India. In the ensuing unmatched competition between mill manufacture and hand-made goods in the foreign markets, Indian fabrics began to lose market after market, which occasioned a further decline in the output. This feature is, at all events, quite perceptible at Patna, so that we may conclude that there the industry had reached a stage where stagnation had set in.

In fact, this was the very first occasion when the Indian cotton textile industry is seen to be suffering from sluggishness which gradually resulted in its decay. Indeed, the industry had such an ancient antiquity that it has been regarded by some as indigenous to India.⁸⁵ Cotton cloth was known to the Sind Valley Civilization⁸⁶ (c. 2500 B.C.); the Sanskrit and Pali texts not only refer to, but also mention details relating to it.⁸⁷ Even Hellenistic Greece was aware of the popular use of cotton cloth amongst the Indian gentry.⁸⁸ Furthermore, it was being imported at the Arabian coast, the towns of Ethiopia,⁸⁹ and in Rome in the 1st century A.D., whose origin was the "anterior India".⁹⁰ Within our region, Kautilya noticed Benaras and Allahabad (*Vatsa Desa*) as seats for the manufacture of finest cotton fabrics.⁹¹

⁸⁵ E. Baines, *History of the Cotton Manufacture*, London, 1835, pp. 9 and 18; A. S. Pearse, *The Cotton Industry of India*, Manchester, 1930, p. 15.

⁸⁶ R. J. Forbes, *Studies in Ancient Technology*, Leiden, 1957, vol. IV, pp. 44-45.

⁸⁷ J. C. Ray, *Textile Industry in Ancient India*, *J.B.O.R.S.*, vol. III, part II, 1917, pp. 181-6, 206 and 207.

⁸⁸ Forbes, *op. cit.*, 45. ⁸⁹ *Ibid.*, 46.

⁹⁰ Lassens, *History of Indian Commerce*, tr. Jaiswal, *J.B.O.R.S.*, vol. X, part III, p. 255.

⁹¹ J. C. Ray, *Textile Industry*, *J.B.O.R.S.*, part III, vol. III, 1917, pp. 181-186, 206 and 207.

Notwithstanding frequent political disorders and convulsions in the country, the cotton textile industry endured and even flourished through long centuries as may be adjudged from its subsequent progress. And yet, the contemptible position allotted to the weaver in the hierarchy of Indian castes remained stringent. Alberuni in the 10th century A.D., staying at Benaras, had observed that they were held in low esteem and regarded so unclean as to be assigned areas for dwellings outside the towns or villages where only higher castes could live.⁹² This factor was perhaps largely responsible for the conversion of the majority of weavers to Islam later on. In fact, the Hindu and Muslim weavers were sets apart from each other bearing the respective designations of *Kori*,⁹³ and *Jolaha*,⁹⁴ in the vernacular. From W. Hoey's account it also appears that while the Hindu weavers produced only the coarser varieties, the Muslim weavers produced the finer cloths,⁹⁵ though they may have made the coarser ones as well.

However, during the early Muslim rule there does not appear to have been any sluggishness in this craft or in the cultivation of cotton. Ziauddin Barani relates that the *kotwāl* of Delhi, Fakhruddin (during the reign of Sultan Balban 1266-86) used to attire himself every day in a brand new suit consisting of five garments which, after a day's wear, he would distribute in alms.⁹⁶ He followed the practice all the 365 days of the year,⁹⁷

⁹² Alberuni, *Kitābul Hind*, tr. Sachau, London, 1914, Book I, p. 182. For their outcaste position also see *Aqwām-i-Hind*, 23b-24a. Badaoni categorises weavers as 'low tradespeople . . .' Badaoni, II, p. 196.

⁹³ *Aqwām-i-Hind*, 23b-24a. The word may have been derived from *kora*, i.e. unbleached cloth. Also see Hoey, *Trade*, 136-7.

⁹⁴ *Jolāha* or Momin are termed by S. H. Hutton as a caste of Muslim weavers, see his *Castes in India*, Oxford, 1951, pp. 121 and 281.

⁹⁵ Hoey, *Trade*, 123-4.

⁹⁶ Distribution of discarded garments, sometimes in very good condition was a common practice in those days (and persists in parts to date). The dependents, especially the domestic servants, were hardly ever required to go in for their purchase; usually the clothing of the servants was taken for granted and formed a part of the master's liabilities, see Thevenot, p. 60. During our period Abul Fazl is said to 'give away his wardrobe to his servants every year', Blockman, A.A. I, xxviii. Similarly Sh. Farid Bukhari excelled Abul Fazl, and used to distribute 3 complete dresses a year to his subordinates (including a pair of shoes for each sweeper) and a blanket to his footmen, A.A.I. 415.

⁹⁷ Barani, *Tārīkh i Fīroz Shāhi*, Calcutta, 1862, p. 117.

which may not have been feasible under circumstances of inadequate supply of cotton goods.⁹⁸ The same author also reports that when Sultan Alauddin Khalji (1296-1320) imposed price control, the rough *karpās* (a kind of cloth) was priced at 40 yards per *tangah* and a bed-sheet could be had for 10 *jitals* only,⁹⁹ when wheat was selling at $7\frac{1}{2}$ *jitals* per maund and barley at 4 *jitals* per maund.¹⁰⁰ Introduction of new varieties like *bairāmi*,¹⁰¹ *shānbāf*¹⁰² and *shiribāf*¹⁰³ would further indicate the progress of the industry during the period.

But the progress of this industry which was to continue in the succeeding centuries, presupposes an abundant supply of raw cotton within the area as its transportation then was no easy proposition. The cultivation of cotton, in fact, occurs perhaps for the first time in a *Sutra* in about 800 B.C.¹⁰⁴ Kautilya, not enlarging upon the subject, seems to have taken its supply for granted.¹⁰⁵ The existence of several varieties of cotton may be gathered from the Sanskrit texts but there were two main ones. First, there was the herbaceous annual plant, about four feet in height, the other was the twelve-year old tree bearing cotton flowers called *senbhal*.¹⁰⁶ The former was utilised for the manufacture of fabrics while the latter was better suited for stuffing and quilting.¹⁰⁷ The annual cotton was common in India and people who had any kind of cultivation included this as one.¹⁰⁸ Unfortunately, we do not have any direct evidence of the Sultanat period relating to the cultivation of cotton crops, but its continuation during the Mughal rule and the prosperity of the industry bear ample justification for the inference that it was not only being grown but presumably had extended in terms of land under the crop.

⁹⁸ And then it could hardly have escaped Barani's comment.

⁹⁹ Barani, 310. ¹⁰⁰ Ibid., 305.

¹⁰¹ Moti Chandra, *Costumes and Textiles in the Sultanat Period*, J.I.T.H., vol. VI, 1961, p. 14.

¹⁰² Ibid., 16 and 38.

¹⁰³ Barani, 310.

¹⁰⁴ Watt, *The Commercial products of India*, London, 1908, pp. 570, 571; Forbes, IV, p. 43.

¹⁰⁵ Watt, op. cit., 570-1; R. Thapar, J.I.T.H., V, 1960, pp. 58-9.

¹⁰⁶ J. C. Ray, J.B.O.R.S., III, Part II, 1917, p. 186.

¹⁰⁷ Watt, *Commercial etc.*, 571; *Reports and Documents connected with the Proceedings of East India Company on the Cotton Wool*, London, 1936, p. 523.

¹⁰⁸ J. C. Ray, op. cit., p. 222.

According to Abul Fazl the per *bigha* yield of cotton was seven maunds twenty seers,¹⁰⁹ and since in all our provinces cotton crops were being assessed for revenue,¹¹⁰ we may take it that its production was universal. Terry, visiting the western regions (1616-19), attests to herbaceous cotton and regarded it as one of the staple commodities.¹¹¹ Malt Brown felt that its cultivation was very lucrative,¹¹² and when we view the fact that in spite of its higher value it was assessed at the same rate as the cheaper foodgrains, the difference to both the state and the cultivator becomes patent.¹¹³

	Assessment Rates. ¹¹⁴	Cultivators' Share.	Total Yield.
wheat	90 <i>dāms</i>	180 <i>dāms</i>	270 <i>dāms</i>
cotton	120 <i>dāms</i>	240 <i>dāms</i>	360 <i>dāms</i>

Thus the cultivator, even after deducting the higher cost of production and more intensive labour would draw a higher margin of profit.¹¹⁵ Indeed, it was this realisation that had led Emperor Akbar to particularly encourage the production of cash crops including cotton. Apart from levying the same rate of state demand (one-third of the produce) as for ordinary crops, the emperor had granted further concessions to the cultivators of this crop. When cultivated on the land of ordinary crops, then one-fourth of the usual assessment was to be remitted for the first year. The '*amulguzār*' was directed to observe this rule even when the yield was larger than expected and the land covered was smaller in area.¹¹⁶ Abul Fazl has not quoted the price of raw cotton, but an approximate deduction is possible from his other figures. The revenue assessment of cotton per *bigha* at Agra was 120 *dāms* while the per *bigha* yield is stated to have been seven maunds, twenty seers and the proportion fixed for revenue was two maunds twenty seers.¹¹⁷ In other words, 120 *dāms* was the market price for two maunds twenty seers of cotton. Thus

¹⁰⁹ A.A. II, 64. ¹¹⁰ A.A. II, 71-87. ¹¹¹ Terry, Foster, 301.

¹¹² M. Brown, quoted by Baines, p. 63.

¹¹³ It is strange that Irfan Habib in his *The Agrarian System of Mughal India*, London, 1963, while discussing the cultivation of cash crops merely refers to the 'enhancement of the state revenue' as its result, and omits the correspondingly higher margin of profit to the cultivator, see p. 253. Abul Fazl, however, points it out, see below.

¹¹⁴ A.A. II, 70. ¹¹⁵ A.A. II, 47. ¹¹⁶ Ibid., 48. ¹¹⁷ Ibid., 70.

one maund of cotton would fetch roughly 48 *dāms* or Rupees 1.1/5.¹¹⁸

As regards the process adopted in manufacturing cotton goods, we are confronted with a lack of material. Indeed, there is no contemporary written source to draw upon for this important aspect of the industry. Persian sources, when touching upon non-political or economic subjects, generally handle them from the point of view of the consumer alone, as Abul Fazl has done in the *Ā'in i Akbari*, with the result that the producer's angle is entirely overlooked. Under the circumstances, we are obliged to look into earlier or, more often, subsequent sources in order to discover the method that seems to have obtained during the period of the Mughal rule in the Hindustan region. It may, however, be pointed out that since the surviving handloom industries in India are still being basically carried on as they were in the ancient past, it is quite likely that the intervening centuries saw very little change, if any, either in the apparatus or the operation of the weaving trade.

After having collected the cotton crop from the fields, the first job was to clean it in order to make it fit for the next process of spinning the yarn. The cleaning was effected by means of a

¹¹⁸ No claim can be made for the exactitude of this figure, because with similar calculation regarding the wheat price we get about 15.6 *dāms* per maund which we know is not correct, because Abul Fazl quotes its price at 12 *dāms* per maund, *A.A.* I, 62. It is possible that the difference of 3 *dāms* and odd per maund in wheat price might have occurred due to the difference in time, the assessment rates pertain to 6th and 7th years of emperor Akbar's reign, whereas the price list was compiled presumably at the time of writing of the *Ā'in*, i.e. c. 1595. At all events, there is no indication that the price was current in the 6th and 7th years of the reign as well. Furthermore, in 1784, the English had fixed prices at Benaras for customs purposes, according to which wheat was 14 annas and cotton with seeds Rs. 2.8 as. per md. Assuming that the ratio between wheat and cotton at Benaras in 1784 was the same as at Agra in 1595 and that Abul Fazl's price was current at Benaras too, we may, by tracing back the prices, get the cotton price at Agra as 34 *dāms* per maund. This, again, leaves a wide margin when compared to the above 48 *dāms* per maund. But in spite of these discrepancies the above figure has been taken merely for the sake of a working hypothesis as being the best under the circumstances since, it is based on the most authentic account where assumptions may not be necessary. For the Benaras prices see *Papers Relating to India*, 1787 edition, Vol. I, pp. 304 and 308.

foot roller which separated the cotton from its seeds, assuming that it was the inferior kind of cotton called *binaulay dār ruyi*, and selling at Benaras in 1781, at Rupees two, eight annas per maund.¹¹⁹ This cleaning apparatus consisted of two teakwood rollers, fluted longitudinally with five or six grooves, revolving when in contact. While the upper roller was turned with a handle the lower one was carried along with it by a perpetual screw at the axis. The cotton was placed on one side and drawn through the revolving rollers. Since the opening was kept smaller than the size of the seeds they were thrown out to the side opposite the cotton.¹²⁰ According to Watt, however, this type of roller was required for the cotton with hard seeds only, while the *charkha* was the more popular one. This *charkha* was also, incidentally, made of two wooden or iron rollers, fitted, so as to revolve towards each other. The rollers were drawn by hand labour applied to a crank or wheel.¹²¹ If Watt's assertion, that the *charkha* was the more popular one is correct, then it would follow that the inferior variety of raw cotton was not popular. The other variety noted at Benaras was priced at Rupees 10 per maund,¹²² as it was at Patna in 1800.¹²³

Even after the seeds have been cleared cotton remains full of dirt and knots. The next part of the same process of cleaning is, therefore, to get rid of these by means of ginning. The ginners¹²⁴ (or the *dhuneys*) used a piece of bamboo stretched into a curve and joined together by means of a leather string called *tānt* in the vernacular. Only the *senbhal* and *kapas*—herbaceous cotton—were cleaned thus.¹²⁵ Baines describes the apparatus as a large bow made elastic by a complication of strips. This is put in contact with a heap of cotton and the ginner strikes the strings with a heavy wooden mallet, the vibrations open the knots of the cotton, shake off the dirt and raise it to a downy fleece.¹²⁶ The ginners in India constituted a distinct functional class¹²⁷ as they still continue to do. They, even now, may be seen plying their

¹¹⁹ *Papers Relating to India*, I, 304. ¹²⁰ Baines, 66-7.

¹²¹ Watt, op. cit. 611. ¹²² *Papers*, I, 304.

¹²³ F. Buchanan, II, 649.

¹²⁴ For the painting of a contemporary (c. 1804) ginner, see the *Plates*.

¹²⁵ *Aqwām*, 24a-b; see also *Dastur*, 73b. ¹²⁶ Baines, 67.

¹²⁷ *Aqwām*, 24a-b; F. Buchanan, II, 647; see also Badaoni for their inferior status in society, II, 190.

trade especially during winter. F. Buchanan reports that in 1811-12, one-third of the ginners of Patna had capital enough to enable them to buy a little cotton which they cleaned and then retailed.¹²⁸ *Fatāwā i 'Ālamgīrī* mentions the sale of both cleaned cotton as well as of cotton with seeds.¹²⁹ The rest of the Patna ginners worked entirely for hire. A man and his wife could thus make Rupees three to four a month.¹³⁰

The *Fatāwā i 'Ālamgīrī* also notices the sale of raw cotton for obtaining yarn¹³¹ by means of spinning. Spinning being comparatively a lighter and less technical job was quite often done by women.¹³² Almost every house in the villages used to have its spinning wheel,¹³³ and in the Gangetic plains spinning occupied the leisure hours even of the women of rank.¹³⁴ The spinning equipment consisted of two sets, one a spindle for finer yarns, the other the spinning wheel used for coarse yarns.

The spindle was made of metal,¹³⁵ bone, ivory or wood.¹³⁶ It had a crochet-like hook at the top in which the yarn was caught while undergoing the operation of twisting.¹³⁷ It was usually weighted with a whorl,¹³⁸ that is, some clay or wood was attached to its bottom in order to lend it weight.¹³⁹ The usual length of the Indian spindle is not mentioned. Elsewhere, according to Forbes, it was nine to fifteen inches,¹⁴⁰ though the dimension as well as the weight of the spindle was largely determined by the strength of the yarn desired and the fibres used.¹⁴¹ The spindle may or may not have been accompanied with a distaff,¹⁴² which was a plain or ornamental stick from one foot to three feet long. It was used to hold prepared fibres from which the thread was being spun. It was held under the left arm of the operator and was generally used for long fibres, as of flax, but short fibres were spun from carded rolls which were often kept in a pot or a basket.¹⁴³

The spindle, while in operation, was turned round with the

¹²⁸ F. Buchanan, II, 647. ¹²⁹ *Fatāwā i 'Ālamgīrī*, p. 169.

¹³⁰ F. Buchanan, II, 647. ¹³¹ *Fatāwā*, 169.

¹³² Orme, 413; F. Buchanan, II, 647.

¹³³ J. C. Ray, op. cit., 222. ¹³⁴ F. Buchanan, II, 649.

¹³⁵ Baines, 68. ¹³⁶ Forbes, iv, 152. ¹³⁷ Forbes, iv, 152.

¹³⁸ Ibid. ¹³⁹ Baines, 68. ¹⁴⁰ Forbes, iv, 151.

¹⁴¹ Forbes, iv, 153. ¹⁴² Baines, 68. ¹⁴³ Forbes, iv, 153.

left hand and the cotton was feeded with the right.¹⁴⁴ Indian cottons were Z spun, that is, by revolving the left to right, in contradistinction to S spun which revolved it from the right to left and tended to come apart when washed. Z spun yarns or cloths can be washed with less damage to material.¹⁴⁵ As the fingers needed to be kept dry, the women, while spinning used a chalky powder,¹⁴⁶ no doubt, as a measure against perspiration. The yarn thus produced, was generally regarded as "very fine and tenacious",¹⁴⁷ and "extremely fine and yet strong yarns."¹⁴⁸ Unencumbered with any heavy equipment the women spinners could, just as with knitting, carry on their profitable occupation as long as their hands were otherwise disengaged.

The coarse yarn was spun on a heavy one thread wheel of teakwood, roughly carpentered and turned by hand.¹⁴⁹ Forbes, however, gives fuller details regarding this wheel. It is believed to have been invented in India either in c. 500 B.C. or 750 B.C.; Forbes is inclined to favour the former as the more likely date.¹⁵⁰ He considers this wheel to be merely a combination of the lathe and spindle with its whorl. At one end of a base board, two long uprights are fixed in which the driving wheel axles are placed. Two shorter uprights at the other end support an ordinary wooden spindle with its whorl horizontally. The whorl is now transformed into a pulley, a groove being cut into it to take the cord running to the large driving wheel—a principle still used in the modern textile machinery, the pulleys of which are still called whorl, whirles or wharves. The operators of the Indian wheel sat on the ground alongside the wheel. Some fibres of the carded silver are taken with the left hand and attached to the end of the spindle, which is then revolved by turning the driving wheel with the right hand. As the left hand holds the thread, feeding it with more fibres until the hand is at about three feet's distance from the spindle, the fibres glide off the spindle at each turn and thus the turning of the spinning wheel transmits a twist to the stretched thread held at an oblique angle to the spindle. When a full arm length of thread has been spun the spinner stops the wheel, and, gliding it at right angles to

¹⁴⁴ Baines, 68. ¹⁴⁵ Forbes, iv, 151. ¹⁴⁶ Baines, 68.

¹⁴⁷ *ibid.* ¹⁴⁸ Forbes, iv, 156.

¹⁴⁹ Baines, 68. ¹⁵⁰ Forbes, iv, 156.

the spindle, winds it up slowly by spinning the wheel in a contrary direction.¹⁵¹

Whatever the actual date of the introduction of the spinning wheel might have been, it is certain that it must have revolutionised the spinning process with a corresponding impact on the cotton textile industry. Evidently, the output of yarn thus produced would be substantially larger than the amount turned out by the earlier implements. Hence there would be greater inducement to take up the craft as a full-time regular occupation. Moreover, due to its much faster speed and less laborious process its yarn would be priced at lower rates than similar yarn turned out otherwise. This, in turn, would affect the general retail price of finished goods. Since in our region the majority of goods produced belonged to the medium quality, we may assume that this wheel was being more frequently used than the spindle and a sizable part of the aggregate yarn employed was being produced thus. This may have been one reason why, after the 1630s, when there was a sudden increase in the demand for piece-goods for export, the region was able to furnish the requisite amount. This would not have been possible without an adequate and constant supply of yarn. Finally, though we have very little data to go upon, there does not appear to have been any marked upward movement in the prices of the coarser varieties during our period; had there been, the European merchants would certainly have noticed it and would have shifted the area of their business.

According to Buchanan's estimate in c. 1811, the total output of yarn at Patna was worth Rupees 23,67,277/- and was spun by 330,426 women spinners, each spinning worth Rupees seven, two annas and eight pies. The total margin of profit realised amounted to Rupees 10,81,005/- or Rupees three and four annas per head.¹⁵² The same author reports that at Patna, during Vinsittart's period as the customs master, the import duty calculations showed that the average annual import of cotton was valued at Rupees 3,50,000, which represented 35,000 maunds of cotton at the rate of Rupees ten per maund. Deducting 1000 maunds, used for stuffing purposes, the remaining 34,000 maunds

¹⁵¹ Forbes, iv, 156.

¹⁵² Buchanan, II, 647.

had been "spun on the small wheel common in India."¹⁵³ As is borne out by this statement and is also categorically asserted by the *Fatāwā i 'Ālamgīrī*, the thread used to be sold by weight or tale,¹⁵⁴ or could be exchanged with other commodities sold similarly, like cotton.¹⁵⁵ Sometimes the yarn used to be starched prior to weaving, either for the sake of adding to its weight¹⁵⁶ or to facilitate the weaving process.¹⁵⁷ In the same way, the yarn had to be dyed beforehand in all the cases of what Forbes terms Pattern weaves, for example, lines in equal plain weave in colour or made by threads of different textures—selfstripes either in warp or weft or checks,¹⁵⁸ or from among the Indian varieties would be the *doreās* and *chārkhānas*. In Berar, to which the dyeing spread from Delhi, the weavers used to dye the yarn itself.¹⁵⁹ It is, therefore, possible that the system existed at Delhi too.

"The loom is of imperfect structure usual in India,"¹⁶⁰ which consisted of two bamboo rollers, serving for both the warp and weft. A single shuttle, also performing the job of batten, was made like a large netting needle and a pair of paddles completed the weaving requirements.¹⁶¹ At Dacca, the shuttle was made of light wood of the areca-nut tree and had spear-shaped iron points. It was ten to fourteen inches in length, three-fourth of an inch broad and weighed about two ounces. There was a long open space for the wire upon which the reed wound with the weft, revolved.¹⁶² It is possible that the shuttles used in Hindustan were of the similar make.

Several authorities describe the weaving process as it was being practised in India, but their description usually pertains to the coastal regions of Bengal¹⁶³ or Gujarat.¹⁶⁴ Therefore, W. Hoey's description of the Lucknow practice has been selected here. From his narrative there does not appear to have been any significant change from the ancient mode of weaving, though the account was written in 1881. However, since the other

¹⁵³ Buchanan, II, 649. ¹⁵⁴ *Fatāwā*, 114.

¹⁵⁵ *Fatāwā*, 169-170. ¹⁵⁶ J. C. Ray, op. cit., 222.

¹⁵⁷ F. Buchanan, II, 653. ¹⁵⁸ Forbes, iv, 183.

¹⁵⁹ Jayakar, *J.I.T.H.*, vol. I, 1955, p. 57.

¹⁶⁰ Buchanan, II, 653. ¹⁶¹ Baines, 69.

¹⁶² A. Barlow, *History and Principles of Weaving*, London, 1878, p. 62.

¹⁶³ A. Barlow, 62-4. ¹⁶⁴ Forbes, quoted by Baines, p. 70.

accounts are not contemporary either, the latter date may be of no significance, whereas the difference of place sometimes may imply important dissimilarities in details which had some bearing on the industry.

The Lucknow weaver bought his thread from a wholesale dealer, employed a labourer and set him to undo the thread, then wind it on a small bobbin which in reality is only a small piece of reed called *narkul*. These are used to insert the shuttle (*nar*) to make the woof (*bāna*) and are wetted before use. On the larger reeds is wound the thread which is used for laying the *tāna* or warp. Incidentally, Mrs. Kindersley attributed the slowness of the Indian weavers, to this system of stretching the whole length of warp, as it is too laborious and time-consuming process.¹⁶⁵ The *narkul* stalks are stuck upright in the ground at certain intervals and two large *nāris* are fixed by wedges on the ends of long reeds. A person walking along round the uprights drops by a skilful movement of his hands, the two threads one from each *nāri* so as to lap on the alternate uprights. When the warp has (thus) been laid, it is dressed with a paste of flour and dried. It is then taken to the loom and each alternate thread is drawn through a hole in one *rachcha* (leaf of beddles) and the other thread is drawn through the interstices of the *hatta* (batten). The ends are finally fastened to the beam. The other end of the warp is attached to a hook or a peg or any other contrivance swung from or fastened to the ceiling. There is but one beam in the loom. The place of the second is taken by the three reeds which are disposed so as to prevent the threads from becoming entangled behind the *rachchas*. To the *rachchas* are attached treddles and by their movement the shed is produced through which the shuttle flies.¹⁶⁶ At Patna the shuttle was passed through, by two to eight or ten workmen who brought the threads close together with wooden combs in place of a reed.¹⁶⁷

No reference is here made by W. Hoey about the weavers' working in the open; whereas in Bihar W. Hodges (in 1781) came across men busy at their looms in the cool shade of trees attended by their friends and singing soft music.¹⁶⁸ Others also

¹⁶⁵ Kindersley, 244. ¹⁶⁶ Hoey, *Trade*, 123.

¹⁶⁷ Buchanan, II, 656. ¹⁶⁸ Hodges, 27.

believed that weavers worked outside¹⁶⁹ as and when the houses were not large enough to accommodate their whole length of piece of cloth,¹⁷⁰ though when feasible they worked within.¹⁷¹ Even in Bihar the weavers chose to work "within their houses or in a shed, whenever it could be managed and then the roof of the shed was used for fastening the balances of the gear."¹⁷²

This evidence of the impracticability of weaving within their lodgings by the rural weavers has a very important bearing on the urban weaver, as his still smaller lodgings would hardly allow him such facilities as weaving with whole length warp stretched out. And yet no traveller visiting the cities and towns or indeed, any other authority noticed the weavers busy in the open. This argument again takes us back to the weavers busy within, which in effect implies that what Abul Fazl wrote relating to Lahore as having about one thousand *kārkhānas* of shawl or what Bernier said about the large halls of work at Delhi¹⁷³ represented the normal practice. We know that some of the merchants and amirs ran their private *kārkhānas*, where the employecs worked at some fixed remuneration, as in the imperial *kārkhānas*. It is also possible that some of the weavers themselves reached a position where they could maintain their own establishments. Buchanan, for instance, observed at Patna—Dāudnagar—one shop where there were sixteen carpet weavers besides the dyers and spinners.¹⁷⁴ A third alternative would be that, while possessing the required outlay to work on his own account, the weaver might not have a suitable working place. After making some payment he might have been allowed to use a seat or working space in a workshop, in which case the inference would be that there would be established owners hiring out places with or without the implements to the needy ones. They—the owners—may or may not have had any interest in the manufactured goods, so that the employers of weavers or contractors who purchased their goods may not have been identical with the owners of the workshops letting out working space. There is no direct evidence to support the deduction, but it

¹⁶⁹ Baines, 69. ¹⁷⁰ Orme, 410.

¹⁷¹ Forbes, quoted by Baines on p. 70.

¹⁷² Buchanan, II. quoted by Baines on p. 70.

¹⁷³ Bernier, I, p. 258-9. ¹⁷⁴ Buchanan, II, 656.

seems to be the only course left for the middling or less than middling urban weavers whose number could not have been small and the pressure of whose cumulative need must have eventually led to the shaping of some kind of working systems for their benefit. Under the circumstances, this appears to be the most feasible one. Fuller and deeper probing would be required to establish facts with which to corroborate or contradict this supposition.

The number of men required for the out-turn of each piece could be either one, two or three depending on the variety in hand. Two, however, seems to have been more frequent, as for *doreah*—the striped stuffs or figured muslin.¹⁷⁵ The ordinary muslin, however, could be woven by a single man.¹⁷⁶ *Khes*, on the other hand, generally used as dress, required the attendance of three men, one for pulling the thread to form the pattern, another for twisting the thread and the third to weave.¹⁷⁷

Thus the crude weaving apparatus, unattended by any elaborate equipment was capable of yielding substantial results. The equally simple mode of operation, which with some practice could lend skill in the craft, further raised its value. Therefore, in the Mughal days when money was dear, but time and labour along with raw cotton plentiful, the weaving industry became the most lucrative of all the crafts, which naturally led to its greater diffusion. Evidently, it were these factors, simple equipment and relatively easy operation, which made the Indian weavers of the interior parts where money was still scarce and labour plentiful, adhere to this mode of textile production long after the introduction of the modern mill to produce goods for their local markets.¹⁷⁸

After weaving, the cloth was sent to the bleachers and then to the dyers. The bleachers belonged to a particular caste in India who washed clothes in order to earn their livelihood.¹⁷⁹ The bleachers used lime and some other local ingredients to boil their cloth, took it to a nearby river or pond, beat it vigorously on a stone slab with a beetle,¹⁸⁰ or a heavy wooden stick,

¹⁷⁵ Barlow, 63-4. ¹⁷⁶ Hoey, *Trade*, 123.

¹⁷⁷ Buchanan, II, 652. ¹⁷⁸ See Watt, *Commercial* etc., 616.

¹⁷⁹ *Dastur*, 73b; *Aqwām*, 22a-b; Hutton, 34, 136 and 217.

¹⁸⁰ Buchanan, II, 654.

then washed it clean.¹⁸¹ This beating system was greatly disapproved of by the European traders as it was apt to injure the goods of finer varieties causing reduction in their price.¹⁸² On the other hand, it was quite economical for the washerman, as by so doing he could save on the lemons.¹⁸³ Lemon, according to Tavernier, was a necessary ingredient in bleaching¹⁸⁴ and a *Dasturul'amal* of 1065 A.H. asserts that lemon and soap in a certain proportion were used by the washermen.¹⁸⁵ A variety of soap called Irāqi, was considered the most effective in washing cloths bright white.¹⁸⁶ When the cloth was intended for dyeing then *khār* or carbonate of soda was used for bleaching.¹⁸⁷ But at Shikarpur it was sulphur that was used as a bleaching agent. The town imported about fifty maunds of sulphur annually and retailed at Rupees twelve per maund.¹⁸⁸ Thick soup of boiled rice,¹⁸⁹ mixed with some indigo was used to starch the cloth and give it a whitish effect.¹⁹⁰ At Patna, the starching agent was, however, a local root called *kundri*.¹⁹¹ The said *Dasturul'amal* includes '*abraq*' (mica) amongst the ingredients used by the washermen.¹⁹² It was, no doubt, meant to give a lustrous finish to the washed cloth. Afterwards, the cloth was spread out in the open sunshine to dry.

But, like Tavernier the English factors also, did not find the Upper Indian bleaching to their satisfaction, partly due to the poor effect it had. For example, in order to get the semianos washed in Samana itself it required the stay of two merchants for the whole year.¹⁹³ Furthermore, when these were purchased brown locally the price difference from those bought at Agra amounted to ten per cent, whereas the whited ones yielded a margin of five per cent only.¹⁹⁴ The brokerage deductions too could be saved by buying them brown.¹⁹⁵ As regards the unsatis-

¹⁸¹ The letters of F. Coeurdoux, Appendix A, *J.I.T.H.*, III, 1957, p. 29.

¹⁸² *E.F.* 1646-51, p. 2; Tavernier, II, 28.

¹⁸³ Tavernier, II, 28. ¹⁸⁴ Tavernier, II, 28; *Dastur*, Add. 67b.

¹⁸⁵ *Dastur*, Add. 67b. ¹⁸⁶ *Mir'āt*, 369.

¹⁸⁷ The letters of F. Coeurdoux, op. cit. p. 29; *Dastur*, Add. 67b.

¹⁸⁸ T. Wardle, *Monograph on the Tusser and other wild silks of India*, London, 1878, p. 24.

¹⁸⁹ *ibid.* 34. ¹⁹⁰ The letters of F. Coeurdoux, op. cit. p. 29.

¹⁹¹ Buchanan, II, 653. ¹⁹² *Dastur*, Add. 67b.

¹⁹³ *E.F.* 1618-21, 168. ¹⁹⁴ *E.F.* 1618-21, 357.

¹⁹⁵ *E.F.* 1642-45, 135.

factory effect, the example may be cited of the improperly bleached *Akbaris* sent to London in 1642,¹⁹⁶ or the advice that the *Daryabadis* needed more careful bleaching.¹⁹⁷ Evidently, it was due to this poor bleaching that the English factors in 1646 bought *Daryabadis* brown and got part of them bleached at Lucknow and forwarded the rest, as it was.¹⁹⁸ A few years later, in the 1650s, it was discovered that the best plan was to buy the goods brown and send the entire Lucknow-Agra consignment to Broach¹⁹⁹ in Gujarat, where because of the large lemon fields in the neighbourhood, bleaching was done better than elsewhere.²⁰⁰ The *Amertees* of Patna were equally poor with regard to their local washing, so that the factors deemed it more desirable to buy them brown or even semi-washed but unstarched at Patna and have them bleached elsewhere.²⁰¹ A further cause of complaint in local washing was that the factors, in conformity with the custom, but for obscure reasons, were required to tear off a bit from the cloth while giving it for washing, so that the total length of the piece was shortened,²⁰² a contingency that could not have been favourable to business.

Though relegated as an outcast, the washerman enjoyed certain legal rights. For example, in the event of a rent made in the cloth at some unknown stage and discovered after it was received from them, the liability of the damage was to be equally shared by the merchant.²⁰³

Dyeing : The cloth was now ready for treatment with colours, by printing, painting or dyeing. It may, however, be remarked at the outset that though it is said that block printing and mordanting techniques had originated in the prehistoric antiquity of India, and up to our times could produce effective and even durable results, it nevertheless remained a rather elaborate, tentative and uncertain process. Even in plain dyeing each of the various shades required a separate set of treatment,²⁰⁴ which was complicated by the use of crude natural resources instead of readymade dyestuffs, with the few exceptions such as indigo

¹⁹⁶ Ibid. ¹⁹⁷ Ibid.

¹⁹⁸ E.F. 1646-51, 56. ¹⁹⁹ Ibid, 33. ²⁰⁰ Tavernier, II. 6.

²⁰¹ E.F. 1618-21, 205, 213. ²⁰² Ibid, 205. ²⁰³ *Fatāwā*, 129.

²⁰⁴ Letters of Coeurdoux, op. cit., 28-32; The Baulieu ms., c. 1734, tr. by P. R. Schwartz, *J.I.T.H.*, II, 1956, pp. 9-16.

and lac for blue and red respectively. Thus a contemporary compilation entitled *Nuskha khulāsatul Mujaṛrebāt*, describing seventy seven processes of dyeing (including some printing) for obtaining forty eight shades,²⁰⁵ recorded that almost all of the ingredients used were taken raw from the floral kingdom, apart from mordants, indigo, catechu and so on. Again, presumably it was due to the same reason that while the existence of dyers (*rangrez*) is noted as a matter of course in the sources,²⁰⁶ the reference to makers of dyestuffs or dealers in dyestuffs is rare unless they be *nīlgars* (indigo makers), *Ach farosh*, or '*gulālsāz*'²⁰⁷ (vermilion makers). In this connection we may recall here that Agra was noted for the preparation of dyestuffs, that the indigo manufactures of Delhi occupied a full ward and that the dyers of lac were available in Lucknow.²⁰⁸ It is nevertheless evident from the above *Nuskha khulāsatul Mujaṛrebāt* that mostly the dyers themselves prepared their own decoctions in prescribed proportion combining together the two jobs of making the dyestuffs and dyeing and even printing.

Indigo, or the blue, "on treatment with water gives a wondrous blend of purple and blue,"²⁰⁹ and G. Watt declared that all attempts to find a suitable substitute have failed, it being specially valuable as tinctorial reagent.²¹⁰ The dye, even in its present form, must have been known and manufactured in the ancient past as it was being exported when Pliny wrote his *Natural History*.²¹¹ And it remained a widely demanded commercial commodity²¹² till about the middle of the 18th century. The dye was derived from the indigo plant, which was widely cultivated from Lahore to Oudh²¹³ though with varying degrees of excellence; the dyes of Biana and the surrounding areas were considered the best.²¹⁴ It was a delicate plant, requiring close

²⁰⁵ *Nuskha*, chap. 20, ff. 115a-135a; for some shades see *Mī'rāt*, pp. 274, 469-70, such as lemon or *bist qarari*.

²⁰⁶ Bayazid Baiyāt, *Tarīkh i Humayun wa Akbar*, Calcutta, 1941, pp. 197, 200; *Dastur*, 73a; *Nuskha*, 126b, 127a, 128b, etc.; Buchanan II, 649; Hoey, *Trade*, 165.

²⁰⁷ Buchanan, II, 649. ²⁰⁸ Hoey, *Trade*, 40.

²⁰⁹ Forbes, IV, 111.

²¹⁰ Watt, *Pamphlet on Indigo*, (I.O.L. 257-2235) ed. omitted, p. 11.

²¹¹ Forbes, IV, 110-1. ²¹² Pelsaert, 16.

²¹³ *A.A.* II, 78, 81, 83, 86, 88. ²¹⁴ See p. Chap. I.

attention and skilful handling.²¹⁵ Indigo was employed in paintings, varnishing doors and windows, *chugs* (screens of split bamboo), whitewashing and bleaching purposes.

But it was used primarily for dyeing piece-goods blue,²¹⁶ or in kindred shades—that is, watery blue, greyish and sky blue,²¹⁷ blue black, dark blue, light blue, purple, lavender, mauve, lilac,²¹⁸ emerald blue,²¹⁹ dark-blue-green, sap green and yellow green.²²⁰ The proportion and method of additives went a long way in determining the actual tint obtained. Thus, for instance, if turmeric was applied first and indigo afterwards it would be dark blue-green, but if the process was reversed then the colour would be yellowish green.²²¹ Similarly, it was only the proportion of each of the three ingredients, indigo, *shahāb i khāsa*,²²² and lemon, that determined the variant hues of *sosani*²²³ (purple) and *khashkhashi*²²⁴ (like poppy seeds). Generally fugitive, the colour used to be fixed by some mordanting agent like sulphate of iron, lime, carbonate of soda (impure kind) and some sugar.²²⁵ From a survey of the *Nuskha Khulāsātul Mujaṛrebāt* it appears, however, that whenever a substitute could be effectively employed the use of indigo was disregarded, especially for compounded colours like bottle green,²²⁶ mango green,²²⁷ purple *qarāri*²²⁸ (fixed) and the like, colours in which in view of Liotard's statement one would have expected it as one of the principal ingredients. In fact, Wardle too testifies to the alternative use of the seeds of the plant *Chaukunda* (cassia tara), which abounded all over India, as yielding a blue dye which

²¹⁵ Pelsaert, 10-13; W. Finch, Foster, 152-4.

²¹⁶ Moti Chandra, *J.I.T.H.*, vol. V, 1960, p. 22; Wardle, 27; Forbes, IV, 110; Hoey, *Trade*, 165.

²¹⁷ Hoey, *Trade*, 166.

²¹⁸ Liotard, *Memorandum on Dyes of Indian Growth*, Calcutta, 1881, p. 97; for violet see Tavernier, II, 29.

²¹⁹ *Nuskha*, 119a-b.

²²⁰ Liotard, 97; Wardle, 27. In green and black varnish indigo was added in lac etc. *A.A.* I, p. 226.

²²¹ Liotard, 97.

²²² A red colour said to be extracted from bastard saffron, Platts, *Urdu, Hindi, English Dictionary*, p. 738.

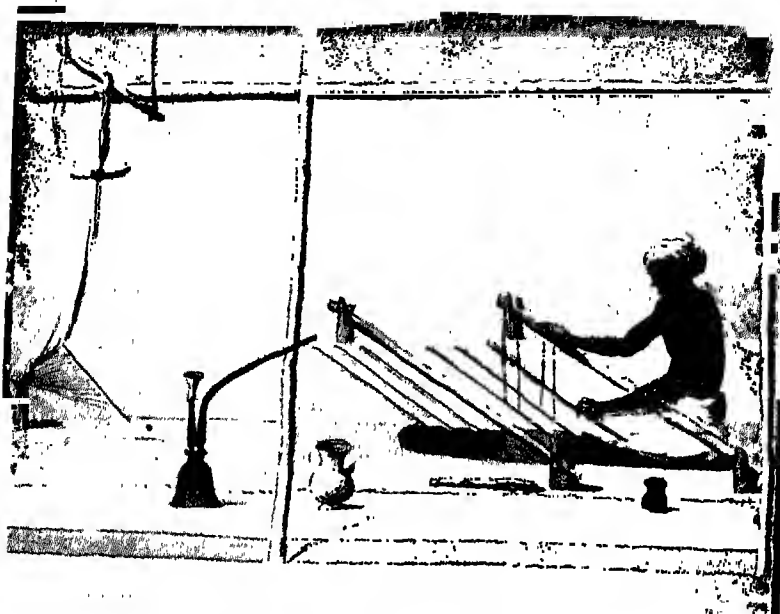
²²³ *Nuskha*, 125b. ²²⁴ *Nuskha*, 125b-126a.

²²⁵ G. Watt, *Pamphlet*, p. 77. ²²⁶ *Nuskha*, 117a. ²²⁷ *Ibid*.

²²⁸ *Ibid*, 126b-127a. Generally purple could be obtained by compounding red and blue, Letters of Coeurdoux, op. cit., pp. 26-27.



A Weaver, probably painted by Sewak Ram (C. 1770-1830)
in C. 1804. I. O. L., Add. Or. 530.



A Muslim weaver called Jolha, Originally prepared by the Order of Marquis Wellesley. I. O. L. , Add. Or. III.



A dyer. Originally prepared by the Order of Marquis Wellesley, I. O. L., Add. Or. 1114. We may note the mode of his working, some of the articles needed for performing his job and his own apparel.



A Thread Twister, Probably by Sevak Ram (C. 1770-1830), of Patna in C. 1808. I. O. L., Add. Or. 397. We may note here his implements, the use of carpet and his own dress.



A blacksmith's shop. Originally prepared by the order of Marquis Wellesley, I. O. L., Add. Or. 1167.



Sugar pressers. Probably by Sevak Ram (C 1770-1830) of Patna
painted in C. 1804. I. O. L., Add Or. 529.



A book binder. Originally prepared by Wellesley, I. O. I., Add.
Or. 1114.

could be fixed by adding lime water.²²⁹ The likely explanation would be that indigo by virtue of being a finished product, was presumably more expensive than other local raw ingredients, so that as far as feasible the local dyers preferred the latter group instead. In black shades, however, the use of indigo was indispensable.²³⁰

As most of the dyes including indigo were fugitive by nature, agents had to be used in order to fix their pigments in the fibres of cloth. These fixing agents were called mordants. The mordant, wrote Forbes, "is usually a soluble salt of aluminium, chromium, iron or tin precipitated on the fibres along with the dye by an alkali. Mordant and the dye then form a lake which adheres strongly to the fibres and this gives fast colour."²³¹ Several ingredients are mentioned which were being used as mordants in the dyeing industry of Hindustan. Among them rind of lemon,²³² flower of *kapās*,²³³ lime,²³⁴ nuts of Bhalawan (*semicarpus anacardum*),²³⁵ lemon, alum, green dried mangoes, myrabolans, sulphate of iron and the like may be enumerated. The strength of the mordanting content in each case varied and the degree of effectiveness was also conditioned by the other components in the solution prepared. Thus, for instance, in some dyes alum produced yellow colour, the mordants in others yielded orange hue.²³⁶

To proceed to the dyeing, lac (*coccus lacca*), *āl* (*morinda tinctoria*), *shahāb*, *majethā* or madder (*rubia tinctorium*), patang (sappan wood), safflower (*carthamus tinctorius*) and bark of the lodh tree (*syruplocas racemosa*) were all eminently suitable for dyeing red and its shades. Lac was really a resinous incrustation formed on the bark of trees by the lac insects.²³⁷ It occurred in the Punjab, Oudh²³⁸ and Bihar²³⁹ provinces so

²²⁹ Wardle, *Monograph on the Tusser and other Wild Silks of India and on the Dyestuffs and Tannin Matters of India*, London, 1878, 20.

²³⁰ A.A. I, 226; Tavernier, II, 29.

²³¹ Forbes, IV, 132. ²³² Wardle, 21.

²³³ Ibid., 26; *Nuskha*, 115b, 118b. ²³⁴ Wardle, 28.

²³⁵ Ibid., 33. ²³⁶ Forbes, iv, 124.

²³⁷ O'Connor, *Note on Lac*, Calcutta, 1874, p. 1; Forbes, iv, 104-5; Liotard, 32. Incidentally, lac does not seem to have been known to the ancients beyond India. According to Birdwood Abu Hanifa was the first Western writer to mention it. O'Connor, p. 6.

²³⁸ Liotard, 32. ²³⁹ Buchanan, II, 649.

that its supply was quite plentiful but owing to its cost it was usually employed exclusively for silk and seldom for calicoes.²⁴⁰ The best kind of the prepared dye called shell lac used to be exported,²⁴¹ and only the inferior kind called stick lac was utilised within the country, for painting cheap trinkets,²⁴² varnishing,²⁴³ and dyeing leather.²⁴⁴ At Patna the 'gulālsāz' used to deal in dyeing with lac alone.²⁴⁵

Āl occurred more particularly at Kotah Boondi,²⁴⁶ and in Oudh, where Mau, Ranipur and Hathras were the principal mart for this dye.²⁴⁷ It was also being assessed for revenue in Abul Fazl's days at the *parganahs* of Karrah, Jajmau, in the subah of Allahabad²⁴⁸ and Eraj,²⁴⁹ Kalpi and Phapund in the subah of Agra.²⁵⁰ The bark of the root rather than the stem was used for its colouring matter as it was brighter than the latter.²⁵¹ Though more often employed for printing,²⁵² it was used for plain dyeing as well, the red bands of carpets (cotton) being entirely dyed with it.²⁵³ The Kharwa cloths of Bundelkhand (southern U.P.) used to be dyed in this *āl* compounded with other ingredients.²⁵⁴ When mixed with linseed or castor oil, alum and *sajji* it used to yield a luminous red colour.²⁵⁵ In fact, its bright red shade as well as its cheapness led to its being employed in order to assist the more expensive dyes in obtaining red colour to the yarn or cloth.²⁵⁶ Thus according to the *Nuskha Khulāsatul Mujarrebāt*, it was compounded with *dhāo* flower (*grisea tomentosa*), pulp of *halīlah* (*terminalia ehabulala*), alum and *antiya khār* in the proportion of $\frac{1}{4}$ seer : $\frac{1}{4}$ seer : $\frac{1}{4}$ seer : 6 dams : 4 dams for dyeing an *orhnī* red like the *sālu* of Burhanpur.²⁵⁷ Since the latter was a permanent colour we may take it that the former too would not be transient. Hoey too learnt that the red colour yielded by *āl* was permanent.²⁵⁸

²⁴⁰ O'Connor, 27; Buchanan, II, 650 for dyeing the silk; as a red dye, Moti Chandra, *J.I.T.H.*, Vol. V, 1960, p. 22.

²⁴¹ Buchanan, II, 649. ²⁴² O'Connor, 26. ²⁴³ *A.A.* I, 226.

²⁴⁴ O'Connor, 28. ²⁴⁵ Buchanan, II, 649.

²⁴⁶ Wardle, 30. ²⁴⁷ Liotard, 51. ²⁴⁸ *A.A.* II, 92. ²⁴⁹ *A.A.* II, 99.

²⁵⁰ *A.A.* II, 101. ²⁵¹ Liotard, 50. ²⁵² Ibid, 51. ²⁵³ Wardle, 30.

²⁵⁴ H. M. Sen, Mode of Dyeing *Kharwa* Cloth, *J.A.S.B.*, II, 1833, p. 158.

²⁵⁵ Hoey, *Trade*, 167-8. ²⁵⁶ Wardle, 30.

²⁵⁷ *Nuskha*, 134a-b. ²⁵⁸ Hoey, *Trade*, 167.

Shahāb, occurring very frequently in the *Nuskha Khulāsātul Mujaṛrebāt*, is identifiable with the safflower on three grounds : First, being a variety of saffron it "yielded a beautiful orange yellow dye . . . wild saffron being better than any other²⁵⁹." Secondly, the *Nuskha Khulāsātul Mujaṛrebāt* has treated saffron separately.²⁶⁰ Finally, its use in shades like *sansai*, *surmai* or *fālsai*,²⁶¹ or varying tints of pink²⁶² and orange by the above manuscript as well as others reflects that *shahāb*, safflower and *kusum* were the different names for *Carthamus tinctorius*.

As safflower was being assessed for revenue by Emperor Akbar in the subahs of Lahore, Delhi, Agra, Oudh and Allahabad,²⁶³ it is evident that its cultivation and production was widespread. A yellow dye was extracted by pounding and washing the dried flowers,²⁶⁴ but it also yielded six or seven shades of red, such as crimson, rose and scarlet.²⁶⁵ When combined with *hār singhār* (nyctanthes arborists) it gave deep orange,²⁶⁶ golden orange and salmon colours.²⁶⁷ The *Nuskha Khulāsātul Mujaṛrebāt* mentions use of *shahāb* (or safflower) in a host of additional shades, such as 'ambari',²⁶⁸ *sirki qarārī* shade,²⁶⁹ *hennāi*,²⁷⁰ *sansai* and *khashkhashi*.²⁷¹ It, however, names two types of *shahāb*, *shahāb i khāsa* and ordinary *shahāb*. In the above group only the use of *shahāb i khāsa* has been prescribed. The other variety was better suited to shades like *shutri*²⁷² (camel colour). The colour obtained from this flower was, however, only fleeting.²⁷³

Majetha or madder was like *āl* found mainly in the southern U.P., and Oudh, Mau, Ranipur and Hathras were, again as with *āl*, its principal markets.²⁷⁴ The plant is a herbaceous perennial and its roots contain the dye. These fibrous roots are gathered, dried, beaten to remove the dirt and outer skin, and finally

²⁵⁹ Forbes, iv, 121.

²⁶⁰ *Nuskha*, 122b, 123a, in dyeing *sandali* and *badami* shades.

²⁶¹ Liotard, 119.

²⁶² *Nuskha*, 125a, 115a-b, 124a-b, etc.; Hoey, *Trade*, 168.

²⁶³ A.A. II, 70-82; G. Watt, *Commercial*, 277.

²⁶⁴ Liotard, 26; Hoey, *Trade*, 167.

²⁶⁵ Liotard, 26; Hoey, *Trade*, 167.

²⁶⁶ *Nuskha*, 125a; Liotard, 26; Moti Chandra, *J.I.T.H.*, V, 1960, p. 22.

²⁶⁷ *Nuskha*, 124b-125a. ²⁶⁸ *Nuskha*, 124b-125a.

²⁶⁹ *Ibid.*, 121b-122a. ²⁷⁰ *Ibid.*, 117a-b. ²⁷¹ See above.

²⁷² *Nuskha*, 131a. ²⁷³ Hoey, *Trade*, 167. ²⁷⁴ Liotard, 50-1.

pulverised. The dye content is in the form of glucoids in a red layer between the outer rind and the core of woody particles. Hence the actual dye has to be freed from the colouring materials by a complicated process.²⁷⁵ Though some dye is also contained in the stem, it is not of as bright a red colour as that of the root.²⁷⁶

Though later writers such as Liotard and W. Hoey, attest to its more frequent use by the printers of calicoes than by the dyers,²⁷⁷ *Nuskha Khulāsatul Mujarrebāt* details numerous shades in which madder figures as one of the principal ingredients in solutions such as *subz i amboh*,²⁷⁸ *shutri*,²⁷⁹ *sandali*,²⁸⁰ *Tusi*,²⁸¹ *ūdāh qarāri*,²⁸² and *malagūri sandali*.²⁸³ The contradictory nature of the testimony on the question may be explained by references to the changes that occurred between the dates at which it was recorded—from, in fact, 1714-60 to 1880s.²⁸⁴ By 1880, the Indian textile industry had become a thing of the past, whereas up to the middle of the eighteenth century the industry was still flourishing, coloured goods were much in demand and the finer products were appreciated and paid for. Consequently, up to the 18th century the effect of the colour produced would have been a more decisive factor than regard for the cost of materials. The madder as mentioned by the *Nuskha Khulāsatul Mujarrebāt* is of three kinds—*kābuli* (from Kabul), *khushrang* (bright coloured) and simple *majetha*; the difference in their properties or effect is, however, not stated. The colour imparted by madder or *majetha* was reckoned as permanent.²⁸⁵

The *tūn* tree (cedrela toona) indigenous to the western and northern U.P., was particularly useful for the dyers. Its bark is a powerful astringent, its flowers yielded red or yellowish dye, and the seeds produced a red dye.²⁸⁶ Consequently, we find that

²⁷⁵ Forbes, IV, 106.

²⁷⁶ Liotard, 50; also see for its use as a red dye, M. Chandra, *J.I.T.H.*, V, 1960, p. 22.

²⁷⁷ Liotard, 51; Hoey, *Trade*, 168; we may also note here that Wardle does not mention madder at all.

²⁷⁸ *Nuskha*, 117a. ²⁷⁹ *Ibid.*, 122a-b.

²⁸⁰ *Ibid.*, 122b-123a. ²⁸¹ *Ibid.*, 129b-130a.

²⁸² *Ibid.*, 126b-127a. ²⁸³ *Ibid.*, 127a-b.

²⁸⁴ It was in the capacity of Licence Tax Officer of Lucknow in 1878, that Hoey collected his facts and published his book in 1880, see Introduction.

²⁸⁵ Hoey, *Trade*, 167. ²⁸⁶ Liotard, 82.

the *Nuskha Khulāsatul Mujaṛrebāt* prescribes its use in many colours, such as *shutri*,²⁸⁷ *sufiāna khāsa*,²⁸⁸ *nabāti*,²⁸⁹ reddish almond,²⁹⁰ *hennā'i*,²⁹¹ emerald green (*zamurradi*),²⁹² *gul i champa*,²⁹³ saffron,²⁹⁴ and almond.²⁹⁵ But other authorities, for instance, Hocoy, writing about the Lucknow dyers mention only sparing use of the dye obtained from *tūn*.²⁹⁶

Putung (sappan wood; caesal pinia) was an imported commodity from the Deccan. Its wood was pale when fresh but on exposure to air it turned reddish which yielded red colour. Compounding it with acid and alkali, however, made it impart yellow and violet colours.²⁹⁷ But all the shades obtained are fugitive.²⁹⁸ The *Nuskha Khulāsatul Mujaṛrebāt* employs it for adding to the solution of some of the colours such as *bādanjānī*,²⁹⁹ or '*abbāsī*'.³⁰⁰ At Lucknow, we are informed, it was used to obtain *gul i anār* (flower of pomegranate) and *qirmizi* (crimson) shades.³⁰¹ Liotard, however, relates that it was used at Benaras in the solution of *sausni* colour which was but imperfectly fast.³⁰² He notes that in the Punjab it was used to obtain durable purple colour,³⁰³ in Oudh for fleeting purple colour,³⁰⁴ and permanent *kākraizi* colours.³⁰⁵

The bark of *kachnār* (*baubinia variegata*) was also used for obtaining red colour; the *Nuskha Khulāsatul Mujaṛrebāt* refers to its employment in one of the three processes of the *Tūsi*

²⁸⁷ *Nuskha*, 122a-b; 131a. ²⁸⁸ *Ibid.*, 127a.

²⁸⁹ *Ibid.*, 130b-131a. ²⁹⁰ *Ibid.*, 123b-124a.

²⁹¹ *Ibid.*, 117a-b. ²⁹² *Ibid.*, 119a-b.

²⁹³ *Ibid.*, 117a. ²⁹⁴ *Ibid.*, 124a-b. ²⁹⁵ *Ibid.*, 123a.

²⁹⁶ Hocoy, *Trade*, 166-7. Under the circumstances the idea suggests itself that our anonymous author of the *Nuskha* if writing from his own experience flourished in or around the western U.P. where the occurrence of the *Tūn* was common. In the event of his being only the author and not the dyer he seems to have embodied the experiences of a dyer who was operating within the said region. Judging, however, from the intimate knowledge of the craft reflected in the work and straightforward presentation of his subject matter, it seems more likely that the author himself practised the trade and was educated enough to compile his experiences however non-literary or crude it may be.

²⁹⁷ Liotard, 24 and 25. ²⁹⁸ Hocoy, *Trade*, 167; Liotard, 24.

²⁹⁹ *Nuskha*, 134a. ³⁰⁰ *Ibid.*, 132b-133a.

³⁰¹ Hocoy, *Trade*, 167. ³⁰² Liotard, 119.

³⁰³ Liotard, 120. ³⁰⁴ *Ibid.*, 119. ³⁰⁵ *Ibid.*, 120.

colour.³⁰⁶ The deep crimson dye extracted from the bark of the *Lodh* tree (*symplocas racemosa*) was used for dyeing silk rather than cotton fabrics, perhaps due to its cost, four seers per Rupee, as it used to be brought to Hindustan from the Kumaon hills.³⁰⁷ Similarly, the light red dye obtained from the galls and flowers of the *pista* (*pistachia vera*) was better suited for silks. It was also an imported commodity from the north-western region, though it occurred in the Punjab and U.P. too.³⁰⁸

Yellow colours were obtained from several vegetable products, chief among them being turmeric (*curcuma longa*), rind of pomegranate (*punica granatum*), seeds of *tūn*, the flowers of *dhāto* (*grislea tomentosa*), galls of *myrabolans* (*terminalia ballerica*) saffron, *dhāk* (*bhutea frondosa*) and *hār singhār* (*nyctanthes arborists*).

Turmeric tubes were used for extracting the yellow dye.³⁰⁹ In the ancient times it was often dubbed "Indian saffron" by the Westerners.³¹⁰ From Abul Fazl's statistics, we learn that it used to be cultivated all over the region, extending from the subah of Lahore to that of Allahabad.³¹¹ Later writers too attest to its universality.³¹² In fact, it constituted one of the principal spices of Indian curries and other dishes.³¹³ It was prized during Emperor Akbar's reign, at ten *dāms* per seer.³¹⁴ It imparts a bright yellow colour,³¹⁵ which though fugitive can sometimes be rendered fast by mordanting.³¹⁶ Wardle, however, was more sure of the Indian mordanting and held that by adding them the colour was fixed.³¹⁷ On silks and *tusser* it imparted bright yellow and gold colours respectively.³¹⁸

Compounded with other ingredients, it produced many more shades besides plain yellow. Thus, in order to obtain shades like 'amber',³¹⁹ *pistai*³²⁰ (like pistachio), *kishmishi*³²¹ (like

³⁰⁶ *Nuskha*, 130b. It was also used for dyeing yellows on cottons, see Wardle, 17.

³⁰⁷ Wardle, 34. ³⁰⁸ Wardle, 32; Liotard, 11.

³⁰⁹ Liotard, 83; M. Chandra, op. cit., p. 22.

³¹⁰ Forbes, IV, 122. ³¹¹ *A.A.* II, 72, 75, 78, 80 and 82.

³¹² Liotard, 83; Hoey, *Trade*, p. 167.

³¹³ *A.A.* I, 64. ³¹⁴ *Ibid.*

³¹⁵ *Nuskha*, 116b; Liotard, 83. ³¹⁶ Liotard, 83.

³¹⁷ Wardle, 23. ³¹⁸ *Ibid.* ³¹⁹ *Nuskha*, 124b-125a.

³²⁰ *Ibid.*, 118a-b, 118b-119a. ³²¹ *Ibid.* 119b-120a.

raisins) and orange,³²² turmeric was added along with other substances. Green, ordinary as well as some of its shades, required turmeric to be added to indigo.³²³ Indeed, it is one of those dyeing agents which occurs very frequently in the recipes enunciated by the *Nuskha Khulāsatul Mujaarrebāt*, evidently because it was essential for both yellow and green shades as well as being useful for producing many other colours.

The rind of pomegranate yielded the dye. The inferior quality of this fruit was found all over the place and by a happy coincidence, this variety was better suited to dyeing than the superior variety of this fruit. Nevertheless, it was also imported from the north-west.³²⁴ In fact, it appears that unlike turmeric or indigo, the use of the rind of pomegranate as a dye travelled from west due east. According to Forbes, this dye was being extracted in Mesopotamia as early as 2,000 B.C., by means of grinding the rind, then mixing it with water.³²⁵ Liotard holds that the rind was ground and boiled giving a decoction of greenish colour.³²⁶ Thus for many colours, requiring this hue in their composition, the rind was being used such as green, *sabz i ambohi*, *sandali*, *tūsi*, *bādāmi*, *pista'i*, *shutri*³²⁷ and so on. Or when the rind was added to a decoction of turmeric and indigo, shades of green were obtained.³²⁸ On the whole, the dye is said to have been extensively used for obtaining deep yellow and other shades.³²⁹ The rind was also being put to use as an astringent agent for fixing the fugitive yellow obtained from turmeric. *En passant*, we may, however, note that the rind of pomegranate was not being employed at Lucknow as a yellow dye for cotton cloth when W. Hoey collected his data in c. 1880.

The flowers of the *tūn* plant sometimes yielded yellow and at others red dye matter as seen earlier. In shades such as *bādāmi*,³³⁰ *sabz i pista'i*³³¹ or *hennā'i*³³² perhaps its yellow substance occasioned its use. Here, however, it may be remarked

³²² *Nuskha*, 124b-125a. ³²³ Wardle, 23. ³²⁴ Liotard, 12.

³²⁵ Forbes, IV, 122. ³²⁶ Liotard, 13.

³²⁷ *Nuskha*, 119a, 120a-b; 116a-b; 127a-b; 130b; 123b; 118b; 122a; respectively.

³²⁸ Liotard, 13. ³²⁹ Liotard, 13; Wardle, 32.

³³⁰ *Nuskha*, 123a. ³³¹ *Ibid*, 117b-118a. ³³² *Ibid*, 117a-b.

that in several other shades such as *nabāti*³³³ or *shutri*,³³⁴ the anonymous author prescribes the use of peeled *tūn* in which cases it was perhaps the fruits that yielded the dye.

Dhāo (*grislea tomentosa*) was to be found everywhere,³³⁵ and it was, again, its flowers that contained the yellow matter,³³⁶ though the leaves and twigs too were useful in calico printing.³³⁷ It also acted as an additive in decoctions prepared with indigo for green³³⁸ and red colours.³³⁹

Terminalia trees were of three kinds and were found in the Punjab, United Provinces and Oudh. The sap obtained by puncturing the *terminalia bellerica* was useful for its durable bright yellow properties when mixed with alum.³⁴⁰ According to Liotard, its price was Rupees three per maund.³⁴¹ It was also used as mordant in dyeing other shades.³⁴² Myrabolan fruit contained much tannin and its use is frequently advised by the anonymous author of the Persian manuscript.³⁴³ Again, when compounded with alum and salts of iron, myrabolan fruit yielded a black dye,³⁴⁴ which could be permanent by adding ferruginous mud in the infusion.³⁴⁵ The rind of the fruit also yielded a dingy yellow colour.³⁴⁶ The chintz and carpets, however, used to be dyed in the durable yellow obtained from the bark and galls of the *har terminalia* tree.³⁴⁷

Hārsinghār (*nyctanthes arboris*) occurred everywhere and its fragrant flowers yielded yellow colour.³⁴⁸ Actually, it is only the saffron coloured stalk of the flowers that is capable of yielding the dye, the petals being milk-white.³⁴⁹ It was generally being used along with turmeric and safflower for dyeing silks.³⁵⁰ When mixed with safflower, orange colour or scarlet colour could be produced depending upon the proportions used.³⁵¹

³³³ Ibid, 130b-131a.

³³⁴ Ibid, 122a-b.

³³⁵ Liotard, 46.

³³⁶ Wardle, 26; Liotard, 46.

³³⁷ Liotard, 46.

³³⁸ Wardle, 26.

³³⁹ *Nuskha*, 134a-b; H. M. Sen, *Mode of Dyeing*, J.A.S.B., vol. II, 1883, p. 158.

³⁴⁰ Liotard, 17; Wardle, 35; G. Watt, *Commercial*, 1072.

³⁴¹ Liotard, 21.

³⁴² Liotard, 17; G. Watt, op. cit., 1072.

³⁴³ *Nuskha*, 122b; 124b; 124b-125a, etc.

³⁴⁴ Wardle, 35.

³⁴⁵ Liotard, 17.

³⁴⁶ Ibid.

³⁴⁷ Wardle, 35.

³⁴⁸ Liotard, 59; Hoey, *Trade*, 166.

³⁴⁹ A.A. I, 76 and 83.

³⁵⁰ Liotard, 59.

³⁵¹ Liotard, 26.

Safflower, besides yielding red, contained yellow dyeing material which could be extracted by washing and pounding the dried flowers. When its yellow dye was prepared in conjunction with indigo, Prussian blue, mauve, deep purple, and other shades of purple were produced, all of which were fugitive, unless fixed by mordanting.³⁵² It is not mentioned at Lucknow among the yellow dyes in use. The yellow dye obtained by *Genda*, employed³⁵³ and found at Lucknow, was transient.³⁵⁴ The pulp of *bel* (aegle marmelos) apart from its tinctorial and astringent properties, produced a yellow dye.³⁵⁵ *Dhāk* flowers (*butea frondosa*) from the wildgrowth trees were also used to produce yellow.³⁵⁶

Brown could be obtained from the bark of *babūl* (*accacia arabica*), catechu (*accacia catechu*) and hena (*lawsonia inermis*). The *babūl* bark, by simply boiling in water, produces shades of brown. By adding catechu and lime while the water is still boiling a somewhat permanent dye is obtained.³⁵⁷ If, instead of catechu and lime, sulphate of iron is added, a black dye is produced. In fact, both the bark and leaves of *babūl* possessed tinctorial properties for which they were frequently used in the dyeing industry of Hindustan.³⁵⁸ Thus its use is mentioned in the saffron³⁵⁹ and *joozi*³⁶⁰ shades by the *Nuskha Khulāsatul Mujaṛrebāt*, while at Lucknow it was used to obtain *agra'i* shade.³⁶¹

Similarly, catechu yielded various tints of brown. The solution made of catechu, a little lime and water yields a permanent brown by straining off the infusion.³⁶² In order to obtain the *agra'i* colour and its shades, catechu constituted the principal ingredient at Lucknow.³⁶³ In *joozi* and almond³⁶⁴ the *Nuskha Khulāsatul Mujaṛrebāt* mentions the use of *pāpariya* catechu.³⁶⁵ The tree was found in Bihar, Delhi and other parts of India.³⁶⁶

Hena flourishes throughout India and has leaves which impart

³⁵² Liotard, 26. ³⁵³ Hoey, *Trade*, 166.

³⁵⁴ Wardle, 34. ³⁵⁵ Wardle, 14.

³⁵⁶ Liotard, 77. ³⁵⁷ Wardle, 14.

³⁵⁸ Wardle, 14. ³⁵⁹ *Nuskha*, 124b.

³⁶⁰ *Ibid*, 133a-b. ³⁶¹ Hoey, *Trade*, 168.

³⁶² Liotard, 8-9. ³⁶³ Hoey, *Trade*, 168.

³⁶⁴ *Nuskha*, 123b. ³⁶⁵ Wardle, 14.

³⁶⁶ G. Watt, *op. cit.*, 9; for Delhi, etc. also see Wardle, 14.

reddish brown colour to cotton stuffs, though it is far more commonly used for dyeing hands, feet,³⁶⁷ hair and beard. It also contains a deep orange dye which may be destroyed by the admixture of acids, while the admixture of alkali infusions of astringent vegetables deepens the hue.³⁶⁸ In colours like *shutri* and '*abbāsi*, it was one of the ingredients compounded.³⁶⁹

A black dye was obtained from the galls of tamarisk, which was found on the bank of the rivers Ganges, Jamna and Sindh.³⁷⁰ But iron salts had to be added to it.³⁷¹ It seems, however, to have been used more as an additive than as a principal dye. For example, all the madder dyed cloth had to be first steeped in this. Or, its use also occurred in the preparatory processing of calicoes for printing.³⁷²

For performing their jobs in Hindustan, dyers required very few and inexpensive implements : a copper vessel to boil the infusion,³⁷³ an earthen vat,³⁷⁴ a wooden stick to stir the boiling infusion or cloth, a wooden club to beat the cloth into smoothness and some old muslin to strain off the solution. The process of dyeing, however, was rather tedious. It consisted of preparing the solution according to the prescribed proportions by means of pounding the ingredients and boiling them, dipping and boiling the cloth in the decoction, rinsing, drying it either in the sun, shade, or partly in both, rubbing the surface with the hand, and then, finally, beating the cloth to smoothness. All these processes occur in the *Nuskha Khulāsātul Mujarrebāt* and elsewhere, but there were cases where not all of these steps were necessary. For example, in pink and orange shades (fleeting ?), boiling was not needed.³⁷⁵

In order to illustrate the process further, we may cite a few instances of dyeing some of the shades. Though Liotard and Hoey describe some of the methods of dyeing, the examples given below are drawn from a translation of some unquoted

³⁶⁷ G. Watt, op. cit., 706 and 707. ³⁶⁸ Liotard, 47.

³⁶⁹ *Nuskha*, 122a-b ; 133a. ³⁷⁰ Liotard, 14 and 15.

³⁷¹ Letters of Coeurdoux, Appendix A, *J.I.T.H.*, vol. III, 1957, pp. 26-7.

³⁷² Liotard, 15. ³⁷³ Liotard, 132.

³⁷⁴ At any rate, at Lucknow it used to be of clay and was called *māt* in the vernacular, see Hoey, *Trade*, 165.

³⁷⁵ *Nuskha*, 125a-b ; 125a.

Persian source,³⁷⁶ but mainly from the *Nuskha Khulāsatul Mujaṛrebāt* repeatedly used above, because we know the latter to be a contemporary document and as regards the former, that too appears to have been a contemporary or a near contemporary account.

In order to dye fifty two pieces of *kharwa* cloth in Bundelkhand, three seers of *halilah* (*terminalia chebula*), three seers of alum, five seers of *dhāo*, eight seers of gum, one maund and ten seers of *āl* were required. Four separate infusions were to be made: *halilah* and water, alum and water, *āl* and *dhāo* well dissolved in sufficient quantity of water, and lastly gum and water. In the case of each of the first two liquids the cloth was to be steeped and then dried, the operation to be performed in the given order. After immersing the bales in the third solution it was to be allowed to take a deep dye and then washed with soap and water. In the fourth solution the cloth was to be steeped and washed. Finally, each piece was to be folded, a little gum applied to its surface and afterwards it was to be beaten smooth.³⁷⁷

Emerald green required compounds of nine ingredients, *nīl i khāsa* weighing six *dāms*, pulp of *halilah* half a seer, *kasīs* (sulphate of iron) two *dāms*, turmeric quarter seer, peeled *tūn* quarter seer, small *kākar-singi* (*pistacia* or *rhus integrerrina*)³⁷⁸ quarter seer, rind of pomegranate half a seer and *āhar* (starch). The *nīl* (indigo), *halilah*, and *kasīs* were to be finely powdered together and boiled. The turmeric, peeled *tūn*, *kākar-singi*, rind of pomegranate and alum were similarly finely powdered together and boiled. Both the solutions were to be cleaned before use. Cleaning here perhaps implied straining off the sediments. The cloth was to be dyed and dried in both the solutions one

³⁷⁶ The translator is one H. M. Sen. The article is entitled Mode of Dyeing Kharwa Cloth in Bundelkhand, translated from a Persian account. *J.A.S.B.*, II, 1833, p. 158. From the *Papers Relating to India* we learn that the word was *kharwārah* a cloth for tents, see *Papers* I, 305. This would suggest that the date of the original piece of writing of the original text must have been somewhere around the last decades of the 18th century, as this variety of tent cloth does not occur earlier.

³⁷⁷ H. M. Sen, Mode of Dyeing etc., *J.A.S.B.*, II, 1833, p. 158; see also *Nuskha*, 134a-b for dyeing red.

³⁷⁸ It is the gall-like excrescences formed on the leaves and petioles of some plants and used in native medicines, Platt's *Dictionary*.

after the other in the given order. Afterwards *āhar* was to be added in the second infusion and the cloth steeped in it, rubbed with hand, dried and beaten smooth.³⁷⁹

In order to obtain *gulābi qarāri* (permanent pink) only alum equalling two *dāms* and the bark of *kachnār* were required. The cloth was to be steeped in alum and water first and then dried. (Here alum was, undoubtedly, being used as a mordant for preparing the cloth to receive the pink dye permanently.) The bark of *kachnār* was to be boiled and cleaned, the cloth then was to be dyed in this liquid and dried afterwards.³⁸⁰

For *gul i anār* (like the flowers of pomegranate), turmeric weighing one *dām*, *shahāb i khāsa* according to taste, though a little more than, say in ordinary pink (other than given above), and some lemon were the required components. Turmeric was to be pounded with water and strained off. The cloth was then steeped in the solution, after which it was to be allowed to dry partly in the shade. After adding lemon to the *shahāb* the cloth was to be dipped again and then finally dried in the shade.³⁸¹ It is not stated whether the dye thus obtained was fugitive or permanent. In order to obtain orange, the proportion of the components was altered; the amount of *shahāb* to be used was reduced, turmeric measuring two *dāms* with something sour was to be added. The process to be followed was to be the same as in *gul i anār*.³⁸² The *hennā'i* (like hena) could be obtained by preparing a liquid of peeled *tūn* measuring six *dāms*, *shahāb i khāsa* measuring four *dāms* with, again, something sour to be added. After straining the boiled *tūn* the other two ingredients were to be added and then the cloth was to be dyed.³⁸³

Printing was a still more complex and tedious process than the ordinary plain dyeing of cloth. It is said to have been the "art of communicating different colours to particular parts while the rest of the cloth retains its white colour, or the whole of the cloth

³⁷⁹ *Nuskha*, 119a-b.

³⁸⁰ *Nuskha*, 125b; for *gulābi*—pink—shades, also see Hoey, *Trade*, 167. Mukhils says it was also called *chheerah*, see *Mi'rat*, 201.

³⁸¹ *Nuskha*, 125a; for *gul i anār* and orange shades also see Hoey, *Trade*, 167 & 169.

³⁸² *Nuskha*, 125a.

³⁸³ *Nuskha*, 117a-b. *Mi'rat* states that cotton cloth and paper used to be dyed in the water of *hena*, p. 212.

may be dyed in one colour excepting particular parts to which some other colours are given."³⁸⁴ The wide diffusion of this art in our region may be inferred from the low prices of chintz which Abul Fazl quotes as two *dāms* per yard.³⁸⁵ At Lahore too, printing was more often done on coarse stuffs, so that the minimum price in Tavernier's time was about the same as recorded by Abul Fazl, that is, from Rupces sixteen to thirty per twenty pieces. If each piece measured ten yards then the minimum price per yard would be three and one fifth of a *dām* per yard, reflecting a rise of sixty per cent provided that the prices at Agra were the same as those at Lahore in Abul Fazl's time.³⁸⁶ Similarly, at Patna the chintz was printed on exceedingly coarse cloth presumably because it was produced for local consumption of the lower classes, though the Portuguese and Armenians bought it for export as well.³⁸⁷ The chintzes of Lucknow³⁸⁸ and Farrukhabad³⁸⁹ in the 18th century were, however, held in high esteem and might have been relatively more costly.

Several types of printing were carried on in Mughal Hindustan. First, there was the stamping of gold or silver leaf, genuine or imitation on coloured cotton fabrics. These were generally used as palanquin coverings, curtains, quilts, *razā'i* (light quilts) and *toshak* (mattresses). Lucknow and Farrukhabad were specially famous for these printed stuffs.³⁹⁰ Patterns were stamped on thin fabrics such as *tanzeb* or muslin for *chikan* work. Besides, there was the printing of cotton fabrics applied on fast colours for articles such as bedding, prayer carpets, *dastar khwān* (table linen), in addition to ordinary chintzes³⁹¹ produced for daily wear. Finally, there was the tie-dyeing common in and around Delhi,³⁹² a practice which, during the declining days of the city was carried over to Berar and Orissa by its emigrant craftsmen as mentioned before. Incidentally, in our region there is no men-

³⁸⁴ Liotard, 132. ³⁸⁵ A. A. I, 95.

³⁸⁶ For these references see below. ³⁸⁷ Buchanan, II, 656.

³⁸⁸ Buchanan, II, 656; T. Mukherji, *Art and Manufactures of India*, Calcutta, 1888, p. 351.

³⁸⁹ T. Mukherji, 351.

³⁹⁰ Hoey, *Trade*, 84; T. Mukherji, 351; for Farrukhabad also see Liotard, p. 132.

³⁹¹ Tavernier, II, 5; Hoey, *Trade*, 84; T. Mukherji, 351.

³⁹² See above under Delhi Industries; also see *Miral*, 462-3.

tion of patterns painted by brushes or quills, such as is said to have been practised in Gujarat or the Deccan.

In the first three types of printing, wooden dies were employed for stamping the patterns on the fabrics.³⁹³ According to Hoey, these dies were cut in four classes—flowered borders, which could be used continuously; secondly, single flowers impressed by one stamp of the die; flowered stripes used to print in running diagonal or transverse lines; letters and quotations and also pictures and figures requiring the use of successive dyes.³⁹⁴ Perhaps the principle of engraving patterns on these wooden dies would be the same as for engraving seals, coinage or inscription on guns. The demand for their wares may be ascertained from Hoey's prices at Lucknow in c. 1880, when the trade by no means could have been in a flourishing state. A very skilful carpenter working alone could earn eight annas per diem, while each die cost four annas per piece to Rupees two to four a set (of the fourth variety).³⁹⁵

But prior to being printed the cloth had to be submitted to washing, bleaching, mordanting and dyeing. The washing alone took several days. It had to be boiled in impure carbonate of soda and other ingredients, beaten smooth with wooden clubs, again boiled in a copper vessel and if the cloth were too coarse, the entire operation had to be repeated. Afterwards, it was left in the sun to dry.³⁹⁶

Bleaching (for permanent prints only) was performed by scheduled caste *chamārs* or *dhobis*,³⁹⁷ the dyer supplying the requisite material, except carbonate of soda. An emulsion of castor or linseed oil was prepared in which the cloth was dipped, dried on grass under cover, some additive mixed in the emulsion, dipped again and dried for an hour in the sun and from three to fifteen days in the shade. The cloth, after a little washing in impure carbonate of soda and other ingredients, was returned to the printers—*chhippis* in the vernacular. An infusion of finely powdered myrabolan, weighing one and a quarter pounds, *bahera* (*terminalia bellerica*) four ounces, galls of *tamarix articulata*

³⁹³ Liotard, 132; T. Mukherji, 349-50. ³⁹⁴ Hoey, *Trade*, 83.

³⁹⁵ Hoey, *Trade*, 83. He mentions a Qutub Ali as the most skilful carpenter of die making at Lucknow.

³⁹⁶ Liotard, 132. ³⁹⁷ See above; Liotard, 132; T. Mukherji, 349.

four ounces, *bel* one and a half ounces and *babūl singri* (legume of *accacia arabica*) one and a half pounds was prepared in castor oil. The infusion could suffice for twenty pieces of cloth measuring five and one-third yards by thirty eight inches. The cloth when dipped in this, is ready to assist the mordanting effect of alum, as well as to create a base to produce a permanent black dye when further submitted to the action of iron compounds. The alum mordant is specially effective when the dyes are derived from the roots of plants such as turmeric, sappan wood, *āl* and madder. The cloth is then beaten again, in order to even its surface for printing, for which the cloth was now in perfect order.³⁹⁸

While the usual printing was done by wooden dyes, a different procedure was followed in effecting the tie-dyeing of Delhi. *Mī'rat ul Istelāh* briefly relates that its colours were fixed. If the cloth was dyed red then the parts apportioned to the, say, green flowers, would be tied so as to prevent red colour from overflowing. Afterwards, the flowers could be dyed in green or other desired shades.³⁹⁹

³⁹⁸ Liotard, 132-3; also see the *Nuskha* for printing on green and *qarāri* shades, ff. 135a; 135a-b.

³⁹⁹ *Mī'rat*, 462-3; also see Liotard, 139.

CHAPTER V

COTTON TEXTILES (*Contd.*)

Varieties: The manufactures of the foregoing centres of cotton goods production covered a wide range of varieties. Several occur before our period, as seen earlier, and some have been mentioned by Abul Fazl, such as *Khāsa*, *Jhona* or *Mihirkul*, in the *Ā'in-i Akbari* volume two. As Moreland concludes, it was not the "every-day manufactures . . . usually recorded in the *Ā'in-i Akbari*, and all the notices of weaving in this work appear to refer to goods which had obtained wider reputation."¹ In addition, Abul Fazl, in the first volume of *Ā'in-i Akbari*, has incorporated twenty two varieties of goods available in the Agra market.² But with the sole exception of *Shelah*, which was being imported from the Deccan,³ their origin is not indicated. We have, therefore, no way of ascertaining from this source, whether or not a particular variety was being produced within our area. Fortunately, however, we have other sources which, though far from being complete, do throw some light upon this aspect of the cotton manufactures. The corroborative evidence in the records of the European trading companies is valuable particularly as it specifies places of production, frequently quotes prices and also, though very rarely, notes measurements. But the interest of the companies was naturally confined to the goods that applied to them as articles of trade and they remained indifferent to the rest. Travellers' accounts have been less useful in this respect than one would expect, for the travellers were not familiar with the current local nomenclature. They seldom name goods, merely writing much as R. Fitch did of 'the manufactures of large quantities of cotton cloth including shashes for the Moor,' at Benaras,⁴ or as Pelsaert did (again at Benaras) that several varieties of turbans, girdles, *suris*, etc. besides *Gangajal* were being manufactured.⁵ Of Jaunpur, Pelsaert said merely that it produced large quantities of cotton

¹ Moreland, *India at the Death of Akbar*, 182.

² *A.A.* I, 94-5. ³ *A.A.* I, 95.

⁴ R. Fitch, Ryley, 103. ⁵ Pelsaert, 7.

goods such as turbans, girdles and plain calicoes.⁶ Subsequent travellers like Manrique, Mundy, Bernier, Tavernier or Manucci, in their writings refrain from naming the cotton goods; they seldom recorded other particulars. However, when either of these two sources—traders' records or travellers' accounts—do mention varieties pertaining to our region and identifiable with any of Abul Fazl's list, the latter's evidence has been regarded as a variety relevant to our region and purpose. Persian sources too sometimes mention varieties of goods but they do not always specify the provenance. But in the case of this latter class of evidence provided that the author wrote from within our region, and that the variety occurs in Abul Fazl's list, it may reasonably be regarded as the product of our region. For example, *malmal* was first noticed by Abul Fazl and occurs again in a *Dasturul'amal*, written at Allahabad. Under these circumstances, it seems reasonable to deduce that *malmal* was definitely being woven somewhere in the Hindustan region. Abul Fazl's list of varieties has, apart from its intrinsic value, the added advantage of quoting the officially fixed price for each item, a factor so vital in assessing their relative grades. The Benaras price list of 1781 would have been far more useful had it been properly spelt and categorised. Some of the names like *Chaylee Baloocherry* (Engrezi), *Gafafy* (Cheet), *Rezoyee Nagurrie*,⁷ *Teraundan*,⁸ hardly make any sense; others such as *cheet sharaudpery*, *Doriah Tindah*, *Doria pourhi Rawsee*, *Doria Jahangīrī Rawsee*⁹ and so on can be read with difficulty and some uncertainty. Further, as cotton goods and silken stuffs are all mixed together in this list, it is difficult to distinguish them. Prices are not very helpful because some of the known cotton varieties are quite highly valued, for example, *tanzeb i Jahangīrī* was quoted at Rupees two hundred and twenty five per score.¹⁰

Naturally, with the progress of time new varieties were introduced, though it is not stated anywhere which of the earlier ones had disappeared and when. It seems reasonable, however, to infer that some of them may have been replaced by others. Nevertheless, their number was perhaps never so large as to have attracted the notice of our authorities, and when this is viewed together

⁶ Ibid. ⁷ *Papers*, I, 305. ⁸ Ibid., 306.

⁹ Ibid., 305. ¹⁰ *Papers*, I, 306.

with the fact that several earlier varieties such as *siribāf*, *malma* or *jhoona* continued to hold their position till the very end of our period, we may safely assume that the balance was in favour of further additions to the existing varieties.

Thus, on listing the varieties produced in Hindustan between c. 1556 and 1803, we find them fifty in number. Given in a tabular form, these would be as follows :

No.	Variety	Origin	Prices	Purpose or other particulars	Reference
1.	<i>KHĀSA</i>	Saharanpur	Rupees 3 to 15 Mohurs ¹¹ per piece	—	<i>A.A.</i> I, 94; <i>Dastur</i> , 61a, no price
		Lucknow	—	for export	<i>E.F.</i> , 1651-54, 52.
		Benaras	Rupees 250 per score	medium	<i>Papers</i> , I, 306.
2.	<i>CHAUTAR</i>	Saharanpur	Rupees 2 to 9 Mohurs per score	—	<i>A.A.</i> I, 94.
3.	<i>MALMAL</i>	Agra	Rupees 10 a piece	—	<i>E.F.</i> , 1618-21, 93.
		—	Rupees 4 per piece	—	<i>A.A.</i> I, 94; <i>Dastur</i> , 61a, no price
		Benaras	Rupees 200 per score	—	<i>Papers</i> , I, 306.
4.	<i>SIRISĀF</i>	—	Rupees 2 to 5 Mohurs per piece	—	<i>A.A.</i> I, 94; <i>Dastur</i> , 61a, no price
5.	<i>GANGĀJAL</i>	Machhiwara	—	—	<i>Haqiqat</i> , 61a.
		—	Rupees 4 to 5 Mohurs per piece	—	<i>A.A.</i> I, 94.
		Benaras	—	—	<i>Pelsaert</i> , 7.
6.	<i>SAHAN</i>	—	Rupee 1 to 3 Mohurs per piece	—	<i>A.A.</i> I, 94.
		Agra	431 mahmudi for 50 pieces	—	<i>E.F.</i> , 1618-21, 61; also see pp. 85 and 178.
7.	<i>JHONA</i>	Benaras Mau & Jalalabad	Rupee 1 to 1 Mohur a piece	beautifully woven	<i>A.A.</i> I, 94.
		Allahabad	—	—	<i>Khulāsat</i> , 30.
		Juanpur & Machhiwara	—	—	<i>Haqiqat</i> , 44b & 61a.
8.	<i>BAFTA</i>	—	Rupees 2½ to 5 Mohurs per piece	—	<i>A.A.</i> I, 94; <i>Dastur</i> , 61a, no price

¹¹ Mohur's price varied between 400 dāms (Rs. 10) and 350 dāms (Rs. 8-12 annas) depending on the state of coins, see *A.A.* I, 32-3.

No.	Variety	Origin	Prices	Purpose or other particulars	Reference
	BAFTA (continued)	Machhiwara	—	export over seas	E.F. 1646-51, 13.
"	"	Agra	Rupees 2 to 12 a piece	khairabadi baft for	E.F. 1646-51, 51; Tavernier, II pp. 5-6.
"	"	Sialkot	—	Africa & E. Indies	Khulāsāt, 95.
"	blue bafta	Agra	—	—	E.F. 1637-41, 278.
9.	MAHMUDI	—	Rupee $\frac{1}{2}$ to 3 Mohurs per piece	export	A.A. I, 94; Ruq'āt i 'Ālamgīrī p. 19, no price.
10.	PANCHTOLIA	—	"	—	A.A. I, 94.
"	"	Bajwara	—	—	Hadīqat, 147.
11.	SĀLU	—	Rupees 3 to 2 Mohurs per piece	—	A.A. I, 94.
"	"	Sirihind	"	red; export over seas.	E.F. 1637-41, 134.
12.	DORIA	—	Rupees 6 to 2 Mohurs per piece	—	A.A. I, 95; Dastur, 61a, no price
"	"	Bajwara	—	—	Akhbārāt, 175†-52, 25.
"	"	Benaras	—	—	Hadīqat, 147.
"	"	Machhiwara	Rupees 50 per score	—	Papers, I, 306.
"	"	—	—	—	Hadīqat, 61a.
13.	MIHRKUL	—	Rupees 6 to 2 Mohurs per piece	—	A.A. I, 95.
"	"	Jalalabad,	—	beautifully done	A.A. II, 169.
"	"	Benaras & Mau	—	—	—
"	"	Allahabad	—	—	—
14.	MANDIL	—	Rupee $\frac{1}{2}$ to 2 Mohurs per piece	—	Khulāsāt, 30.
"	"	Benaras	—	for export	A.A. I, 95; Mīrāt, 205, no price E.F., 1618-21, 206

15. DOPATTA	—	Rupee 1 to 1 Mohur a piece	for turbans	<i>A.A. I.</i> , 95; see also Pelsaert, 7.
16. FOIAH	—	Rupee $\frac{1}{2}$ to 6 per piece	—	<i>A.A. I.</i> , 95.
”	Machiwara	—	with gold border	<i>Haqiqat</i> , 61a.
”	Sialkot	—	—	<i>Khulāsat</i> , 95.
17. CHHINT ¹²	—	2 <i>dāms</i> to Rupee 1 a yard	—	<i>A.A. I.</i> , 95.
”	Agra	—	for sundry sorts; for export	<i>E.F.</i> , 1618-21, 76.
” (quality) Delhi	—	—	for export over seas	<i>E.F.</i> , 1637-41, 134.
” (various Lahore grades)	—	Rupees 16 to 30 per corge of 20 pieces	for bed and table covers and so on; export to Persia	Tavernier, II, 4-5.
”	”	—	for presentation and apparel	<i>Akhbārāt</i> , 1751-52, 82; Nuruddīn <i>Life of Najibuddaulah</i> , p. 75; Sarkar, <i>J.B.O.R.S.</i> XVI, 1931, p. 356.
”	Benaras	Rupees 22, 20, 17 & 16 per score	—	<i>Papers</i> , I, 305.
”	Shahzadpur	—	—	<i>Haqiqat</i> , 126a.
”	”	—	exported to other parts	P. Mundy, II, 98.
”	Sultanpur	—	—	<i>Haqiqat</i> , 61a.
18. GAZINA	”	Rupee 1 to 1½ a piece	—	<i>A.A. I.</i> , 95.

¹² Chintz were the printed cloth on stuffs like *Akbaris*, *E.F.*, 1642-45, 6.

No.	Variety	Origin	Prices	Purpose of other particulars	Reference
18a.	GAZI ¹³ BAFT GAZI	Agra Khairabad	— Rupees 25 per corg	18 to 18½ × ¼ Agra coveds; white and coloured ? × 10¼ or 11½ girihs (16 girihs make a yard, A.A. I. 94, n. 3).	E.F. 1646-51, 296. E.F., 1642-45, 299, Hadiqat, p. 154. E.F. 1642-45, 298.
"	"	Agra	—		
"	"	Machhiwara	—	—	E.F., 1646-51, 13.
"	"	Shahzadpur	—	—	Hadiqat, 154.
"	"	Allahabad	—	—	Khulāsat, 30.
19.	SILHATI " white	— Allahabad	2 to 4 dāms per yard Rupees 55 for 1500 yards of silhate & some other varieties ¹⁴	—	A.A. I, 95. Dastur, 170b.
"	" gazi	Benaras	Rupees 7, 6-4, & 5-8 per 100 yards	in three grades	Papers, I, 305.
20.	CHOKAREE	Agra	—		E.F., 1618-21, 93.
21.	SEMANIAN SEMIANOS	— Samana	— Rupees 2½ to 4½ a piece	for export for export	Roe, Embassy, II, 447. E.F., 1618-21, 161.
"	"	bought at Agra	14075 mahmudi for 2330 pieces	—	E.F., 1618-21, 61.
"	"	Samana	—	11 × ½ coveds size	E.F., 1637-41, 134.
22.	AMERTEES	Patna & adjoining areas	—	that of Patna was shorter	E.F., 1618-21, 161-2, 205.
"	" coarse	around Patna	under Rupee 2 a piece	13X½ yards	E.F., 1618-21, 213.
ZAFARKHANI	around Patna		Rupees 2 to 6 per piece	13 × ¼ yard size	E.F., 1618-21, 213.
	(finer)				

<i>IAHANGĪRĪ</i> (finest)	—	13 × 1 yard size	<i>E.F.</i> , 1618-21, 213.
<i>AMERTĒES</i>	Rupees 1 to 6 a piece	—	<i>E.F.</i> , 1618-21, 197.
"	Lakhawar (near Patna)	—	<i>E.F.</i> , 1618-21, 192-3.
23. 'ALJĀH	Rupees 4 to 10 a piece	13 coveds <i>Jahangiri</i> long	<i>E.F.</i> , 1618-21, 192-3.
	Baikunthpura, Patna	5½ × ¾ coveds; half silk half cotton	<i>E.F.</i> , 1618-21, 192-3.
24. TUCKREE	—	—	Mundy, II, 155.
25. SŪSĪ	The Punjab	Rupees 50 per corgie	<i>Dutch Records</i> , 1629-34, IX p. CCCXVIII, 13.
26. DARYABADĪS	Daryabad	Rupees 1½ per piece	<i>E.F.</i> , 1637-41, 192.
27. GULDĀRS	—	—	<i>E.F.</i> , 1642-45, 85.
28. AKBARĪS	Lucknow & Jalalpur	—	<i>E.F.</i> , 1642-45, 30.
29. KHAIRABĀDĪS	Khairabad	—	<i>E.F.</i> , 1646-51, 254.
30. SIRIBĀF	—	—	<i>E.F.</i> , 1642-45, 85; Barani, 310.
"	Bajwara	—	<i>Hadiqat</i> , 147.
31. MERCOOLS	Nawgaon (Hardoi)	Rupees 28 to 29 per corgie	<i>E.F.</i> , 1651-57, 9.
"	Khairabad & Daryabad	—	<i>E.F.</i> , 1646-51, 78.
32. White cloth	—	wide width and also coloured	<i>Dutch Records</i> , 1629-34, Vol. IX, p. CCCXVIII, 3.
"	Lahore	Rupees 16 to 3 to 400 a corgie	Tavernier, II, 6-7.

¹³ Gazi here has been regarded as an abbreviation of *Gazina*. Gazi was a "coarse cloth fit for making raote zent," Hoey, *Trade*, 132.

¹⁴ It reads "*bist Kori Jehatke Surkh*" which hardly makes any sense.

No.	Variety	Origin	Price	Purpose or other particulars	Reference
	White cloth	Agra	—		Manucci, II, 424.
33.	CHEERĀH	Sialkot	—	for export	Khulāsa, 95.
"	"	—	—	for presentation	Akhbārāt, 1751-52, p. 7.
"	"	Bajwara	—	white	Hadiqat, 147.
"	"	Machhiwara	—	—	Hadiqat, 61a.
34.	ADASKA	Siallkot	—	—	Khulāsat, 95.
35.	DO-LĀ'I	—	—	with double layers	Midrāt, 259.
"	"	Sultanpur (Punjab)	—	—	Hadiqat, 61a.
36.	GULBADAN	Sirhind	—	—	Midrāt, 460.
"	"	Benaras	Rupees 9, 8, 6, 5 and 4 per piece	variable price, for apparel	Papers, I, 305-6.
37.	KOTALYA	Machhiwara	—	—	Hadiqat, 61a.
38.	SHAQAND	"	—	—	Ibid.
39.	BAIRĀMIS	from Agra	—	for export	E.F., 1646-51, 189; for making from Akbaris, E.F., 1637-41, p. 278.
40.	ARDEAS	"	—	for Bantam & along the Arabian coast	E.F., 1637-41, 278.
41.	CANNIKEENS	—	—	—	
42.	GĀRAH	Benaras	Rupees 27, 30, 35, 40, per score	in four grades	Papers, I, 305.

43.	<i>KHARWAH</i>	Benaras	Rupees 17, 20, 25 per score	three grades	<i>Papers</i> , I, 305; Irvine, <i>The Army</i> <i>Mughals</i> , 198
44.	<i>TANZEB</i>	Lucknow	—	—	Hoey, <i>Trade</i> , 123.
	„ Jahangir	Benaras	Rupees 225 per score	—	<i>Papers</i> , I, 306.
45.	<i>REZOYEE</i>	Benaras	Rupees 13, 15, 20, 25, 30 per score	—	<i>Papers</i> , I, 305.
46.	<i>SHABNAM</i>	„	Rupees 50 per piece	—	<i>Papers</i> , I, 306.
47.	<i>CHEET</i>	„	Rupees 12, 15, 20, 25, 30 per piece	five grades	<i>Papers</i> , I, 306.
	<i>SHARAUDEPERRY</i> (Cheet Sardbari ?)				
48.	<i>DASTAR</i>	„	—	exported to Turkey and Persia	Manrique, II, 141.
	„	—	—	exported to coast of Melinda, Abyssinia and Saba	Tavernier, II, 56.
	„	—	—	—	<i>Nuskha</i> , 133b.
	„	Benaras	from Rupee 1 to 7 and upwards	—	<i>Papers</i> , I, 306.
49.	<i>SHAHUNGEE</i> (sootie)	Benaras	from Rupee 1 to 12 a yard upwards	—	<i>Papers</i> , I, 306.

This list certainly reflects an advanced stage in the industry, where one set of combinations rather than another was made to yield a new variety. Further, the existence of fifty varieties becomes ever more significant when we bear in mind that each of them must have consisted of more than two grades, for Abul Fazl invariably mentions a price range for each variety. Sometimes the range is considerable. For example, in the cases of *Khāsa*, *chautār*, *baftah* or chintz the maximum prices are fifty, forty five, thirty three and one-third and twenty times higher than their respective minima. It is, therefore, quite possible that there were several grades within certain varieties. The English factors also reported from Patna that *Amertee* had three grades, coarse, *Zafar khāni* or *J'āfarkhāni*, and *Jahangīrī*. Similarly the *Papers Relating to India* categorically mention five varieties of "*Cheet Sheraudperry*",¹⁵ and "*Rezoyee*", four grades of "*Gafasy cheet*", "*gārrah*" and *chaylee baloocheery*, and three grades of "*nagurrie*", *kharwah* and *guzee silhāti*.¹⁶ Thus if anyone wanted to buy a yard of *khāsa* or chintz he would be required to specify the price he was prepared to pay. Like Surajmal Jat,¹⁷ an ordinary trooper or writer earning about a meagre sum of Rupees ten a month, could afford a chhint "*Jāma*" or *qabā*,¹⁸ but the difference in the quality of their respective materials would be obvious.

Considering the highest prices of each of Abul Fazl's variety, *Khāsa* reaches the maximum of fifteen *mohurs*, *chautārs* nine *mohurs*, *sirīsāf*, *gangājal* and *baftah* are quoted at five *mohurs* each; *Mahmūdi* and *sahan* are at three *mohurs* each; *Sālu*, *doria*, *mihirkul* and *mandil* at two *mohurs* each; *jhona* and *fotah* at one *mohur* and Rupees six respectively and chintz at one Rupee a yard. When compared with other grades, these were certainly of superfine quality, but their excellence was not on a par with that of, say, Dacca muslin. Technically, it no doubt, reflected a relative inferiority and scope for further advance in fineness. But, on the other hand, the absence of extreme fineness in these varieties as well as in those of the subsequent period, proved to be more in the nature of an asset rather than a handicap, inasmuch as

¹⁵ *Papers*, I, 306. ¹⁶ *Ibid.*, p. 305.

¹⁷ Surajmal Jat had been wearing an "angarkha" of yellow chintz, Nuruddin, *Life of Najibuddaulah*, ed. by Sh. A. Rashid, Aligarh, p. 75.

¹⁸ For *qabās* of painted cloth by ordinary men, see Thevenot, 51.

medium quality goods can always command a wider clientele and a comparatively more stable market. The consumers—both foreign and internal—of these medium quality goods would not be the highest nobility, but people belonging to lesser rank who, by virtue of their position, would be (if not altogether safe) less exposed to political vicissitudes, rendering their everyday requirements and demands relatively steady and constant. Perhaps it was this factor, amongst others, that enabled the industry to flourish in areas less affected by political chaos during the 18th century. Consequently, demand for medium quality goods was steadily rising both because of the growth of the population of politically secure middle class consumers and ironically also owing to the decline of the aristocracy, whose changes of fortune were forcing them to give up Dacca muslin and Gujarati brocades in favour of second-rate or lower grade stuff.

From the outset, the European traders, especially the English, were far more interested in the medium-priced or even low-priced goods such as semianos or *Amertees*. This was safer from the business point of view. The market of quality goods for a fleeting nobility could not but be fluctuating—a proposition not at all sound for business. When the supply from Gujarat failed after 1630s, the pressure of demand for piece-goods correspondingly grew in Hindustan. Though we have no measure to assess the volume of production of each variety in demand at this stage, we do, however, know that new varieties such as *khairabadis*, *Dariyabadis*, *Akbari* and perhaps *mercool* were added in response to the growing demand for them. These, again, were not at all expensive goods and their production, therefore, survived the European interest. We have little information regarding the varieties in demand by the Central Asian merchants. But we know that at Lahore their investments were made largely in the low-priced chintzes; the grade of chintz sought by them at Delhi is not stated.

The absence of details relating to the texture of these varieties prevents us from ascertaining the uses to which each of them was best suited. Some of these names have survived, but it is possible that they have undergone some change of connotation in the course of time. However, we may tentatively infer that *doriah* was used mainly for shirtings and chintz for all sorts of purposes including apparel. The Patna *amertees* might have been used for

all those purposes for which voils, *malmals*, *tanzebs*, of inferior quality are being used today. The *Dutch Records* state that *Sūsi* was used by Muslims for trousers and it was quite cheap, at Rupees fifty per corg of twenty pieces or Rupees two and a half a piece. It is unfortunate that they do not mention its measurement. A piece of valuable information to the effect that *sirīsāaf*, *baṣtah*, *khāsa*, *malmal*, *Chār Jāma* and *doriah* were woven from white yarn is imparted by the *Dasturul'amal*.¹⁹

Viewing the list from the angle of lowest-priced varieties, we have chintz and *silhāti* each at two *dāms* a yard. But if we are correct in assuming that *gazīna* was the same as *guzee* of the subsequent period, then with eighteen yards to its piece (as reported by the English factors in 1645 from Khairabad) its price per yard would work out at less than two *dāms* or one and one-ninth *dāms* at Agra in c. 1595. This price seems low enough to have been within the means of the humblest of Akbar's labourers, earning about two *dāms* per diem. His entire outfit of two garments of three yards each²⁰ would have cost him no more than six and two-thirds of the *dāms* (that is, three and a half days' labour) and this would have been a suitable attire for at least the six summer months. Chintz of the lowest grade and *silhāti* were equally economical varieties and could easily cater to the needs of those earning more than two *dāms* per diem such as *gilkārs* (workers in lime?), stone masons or bricklayers, a minimum wage of five *dāms*, five *dāms* and three *dāms* respectively.

It is surprising that neither Abul Fazl nor other sources mention any grades in *malmal*, a variety most in demand among almost all but the lowest section of the people;²¹ the reason for this omission is largely a matter of conjecture. If a piece then consisted of twenty yards, as at present, then it could have been within reach of the people earning as little as Rupees twenty five a month, but one would have expected better varieties to have been purchased by those in easy circumstances.

¹⁹ *Dastur*, 61a; *doriah* might have been self-striped.

²⁰ Really it requires less for a shirt and a pair of trousers, only 3 and 2½ yards. Besides it is extremely doubtful if a man in that position would be dressed that way. Usually when they did manage a set of new clothing it consisted of a jacket and 3×1 yards of plain cloth to tie round the waist; but see below for fuller treatment.

²¹ Kindersley, 194, 222.

Carpets (Duree): No account of varieties of cotton goods produced in Hindustan up to the 18th century can be regarded as complete unless carpets are included. Apart from rich silken or woollen ones, carpets woven either entirely of cotton or cotton mixed with silk or wool were being manufactured in considerable quantities in the region and period under review. Cotton carpets were originally introduced by Emperor Akbar and *kārkhānas* for their manufacture were set up at Agra, Lahore and Fatehpur Sikri²² (then capital for a short while). Carpets at Lahore were both plain and flowered,²³ and this city was regarded as the chief centre for investment in this commodity.²⁴ Agra too produced large quantities of carpets which could be bought in any number from the bazars,²⁵ but their size did not meet the specifications of the English factors.²⁶ Evidently, the Hindustani weavers made goods according to standards of their own. Whenever different dimensions were required they would make to order but at higher prices,²⁷ with long delays and in colours that were liable to fade.²⁸

The industry expanded from the capital cities to small towns and thence penetrated into villages, thus reversing the general direction of Indian industries, which usually travelled from rural centres to towns and cities. Within the succeeding two decades of Akbar's death, Jaunpur had acquired such a position in relation to this industry that Pelsaert reported that the main production of the city consisted of coarse carpets in large quantities.²⁹ Like those of Agra and Lahore, and perhaps in larger quantities, these Jaunpur carpets used to be exported via Patna and Bengal as seen elsewhere.

Buchanan reports that at Patna three kinds of carpets were being produced. One was the common *shatranji* made entirely of cotton, while the others contained a mixture of wool and cotton.

²² A. A. I, 57.

²³ Manucci, II, 424.

²⁴ E.F. 1618-21, 167-8.

²⁵ E.F. 1618-21, 161.

²⁶ E.F. 1618-21, 161.

²⁷ Ibid. Same version is related regarding the Patna carpets, though higher cost etc. is not mentioned. F. Buchanan, II, 657.

²⁸ E.F. 1618-21, 167-8.

²⁹ Pelsaert, 7. There is no reference to carpet weaving at Benaras until 1781, when the E. I. Co. fixed the silk yarn required for "Duree" at Rs. 5-8 as. *Papers*, Vol. I, 307. Therefore it is possible that only silken durries (not thick enough to be termed carpets or 'qālin') were being produced at Benaras.

Thus, in the second kind the warp was of cotton and the woof of wool, while the base of the third was made entirely of cotton and the woollen part was neatly piled over this cotton warp and woof. It was skilfully executed and had beautiful floral patterns. Even the adjoining districts of Patna, such as Daudnagar, made these carpets. The ordinary carpets of Patna measured four and a half by two and a half (yards) cubits.³⁰ These were sold on the spot for Rupees one and seven annas³¹ a piece.

There is some evidence of carpet weaving at Delhi. E. D. MacLagan thinks it probable that some of the employees of the Mughals and their *umerahs* were carpet weavers.³² If this view is correct, then it would indicate that carpet weaving was one of the generally practised crafts at Delhi as at Agra or Lahore. Delhi's close association and proximity with the latter cities would certainly have been a strong reason for its taking to this craft. Moreover, Buchanan reports that at Daudnagar he found the carpet weavers who had come originally from Delhi. Being more skilful in their trade, they were better off than others. The author found that in one of their shops the number of weavers alone went up to sixteen besides the spinners and dyers.³³

These carpets were being used by the inhabitants of the country as bedding or as a cover of seats.³⁴ In the western parts of Hindustan it was also being used for its normal purpose of covering the floor. While the affluent classes confined themselves to rich silken,³⁵ or even woollen carpets, the majority of people would have found the cotton ones better adapted to a hot climate as well as much cheaper in price. This would, incidentally, also account for their widespread popularity and endurance to date. Occasionally these were also used as screen in some of the tents.³⁶

Consumption and Output of Cotton Goods : Unfortunately, we do not have any statistical account which would show the total output of cotton fabrics either within our entire region or in parts of it. All that we can do under the circumstances, is to recount the uses to which our sources show that they were being put,

³⁰ Buchanan, II, 656. ³¹ Op. cit., 657.

³² E.D. MacLagan, *Monograph on Carpet Making*, Lahore, 1907, p. 4.

³³ Buchanan, II, 656. ³⁴ Ibid.; *Dastur*, 63b.

³⁵ A.A. I, 55; Bernier, I, 247-8. ³⁶ A.A. I, 54.

in order to form some rough idea of the extent of their production.

Beddings used to be made primarily of cotton cloth. For winter, mattresses and quilts were needed, which could be wadded with the desired amount of raw cotton. For upper coverings quilts of thickness varying with the season were made, and incidentally, have different names, such as *ek lā'i*, *do lā'i*,³⁷ *razāi*,³⁸ *lahāf* and *bālāposh*.³⁹ *Do lā'i*, according to *Mīr'ātul Istelāh* was a double-layered piece sewn together.⁴⁰ Pillows⁴¹ too used to be stuffed with raw cotton in cotton cloth cases. It may be argued, with some justification, that the cases of mattresses, quilts and pillows would be of silk material for the rich people. However, the rich were too small a proportion of the population, for the total consumption of cotton cloth beddings to have been much affected by their use of silk.⁴² Sometimes carpets were used for spreading under the mattresses. Those who could not afford regular winter bedding would naturally use their seantier summer beddings, supplemented by cheap carpets and thick bed sheets.⁴³ F. Buchanan adds blankets and sackcloth for every sixteen families out of sixty four at Patna.⁴⁴ Cotton sheets⁴⁵ and bedcovers,⁴⁶ were used in much the same way as they are today. It is possible that mosquito nets were frequently used as these were known from the time when Buddhist texts were compiled.⁴⁷ In 1658 Prince Shuja is said to have been using it at Bahadurpur near Benaras.⁴⁸ Buchanan's estimate yielded the head of one family out of every sixty families as using curtained beds at Patna.⁴⁹

³⁷ *Dastur*, 63b.

³⁸ Hoey, *Trade*, 174; average amount of raw cotton stuffed in it was 3/4 seer.

³⁹ Bernier, I, 353; *Dastur*, 63b; Hoey, *Trade*, 174; the average cotton stuffed in these, according to Hoey, was 4 seers.

⁴⁰ *Mīr'āt*, 259. ⁴¹ Bernier, I, 353; *Dastur*, 63b.

⁴² Though it would certainly increase the consumption of silk since its consumers could never be large especially when compared with those of cotton goods.

⁴³ De Laet, 89.

⁴⁴ Buchanan, II, Table no. 9, p. 730.

⁴⁵ *Dastur*, 63b.

⁴⁶ *Ibid*.

⁴⁷ B. P. Mazumdar, *The Socio-Economic History of Northern India*, (11th and 12th century), Calcutta, 1960, p. 195.

⁴⁸ Sarkar, *Aurangzeb*, II, 132.

⁴⁹ Buchanan, II, Table no. 9, p. 370.

In 1781, two grades of web (or *Jāli*) at Benaras were quoted at Rupees forty and thirty two and eight annas a maund respectively.⁵⁰ Other bedding requirements for summer would be carpets, shcets or thin muslin pieces sewn double and called *dohar* (double), used for light covering.⁵¹

Cotton fabrics were needed for furnishings. Here the quality and quantity would to a large extent be determined by the status of the individual consumer. Apart from the draperies a sizable amount of cloth was required for spreading on the floors. Bernier saw the interior "of a good house whose floor was covered with a cotton mattress four inches thick over which a fine cotton cloth is spread during the summer and a silk carpet in the winter."⁵² Pillows and cushions⁵³ of various sizes used also to be kept at places in order to "let the people to lean upon."⁵⁴ The paintings of the period abundantly represent their very frequent use, so much so as to form an integral part of the contemporary cultural set-up. The carriages, such as palanquins, sometimes used to be draped, cspecially those occuiped by men of rank or females.⁵⁵ Red *sālu* seems to have been generally regarded as suitable for this purpose ; of eourse this would be apart from the richer—silken and brocade—varieties.

Tents and camps consumed a very large amount of cotton cloth, generally coarser varieties. Wartime camps for the armies consistng of several thousand men, including both the combatants and non-combatants, used to put up in so many camps and are well known. The material used in each case depended largely upon the position enjoyed by the occupants. In fact, camp equipage constituted one of the major items of the mansabdars' budget, as it did of the Emperor Akbar himself.⁵⁶ Furthermore, the camp equipage was also needed for journeys. Abul Fazl enumerates about a dozen kinds of tents that used to be set up for the emperor and his entourage on such occasions.⁵⁷ Even the ordinary people carried their camping tents along with them when

⁵⁰ *Papers*, I, 307.

⁵¹ Firishta, *Gulshan i Ibrāhīmī*, Lucknow, 1933, Urdu, Vol. II, p. 608 ; *Mā'asar i Rahīmī*, II, 434.

⁵² Bernier, I, 247-8. ⁵³ Bernier, I, 248 ; *Dastur*, 63b.

⁵⁴ Bernier, I, 248. ⁵⁵ Thevenot, 76.

⁵⁶ *A.A.* I, 45-47. ⁵⁷ *A.A.* I, 53-4.

they set out on long journeys, as Roe⁵⁸ or Bernier⁵⁹ did. Again, the *banjārahs* who constantly travelled with all their families and household effects, used to avail themselves of tents as a mobile shelter in the course of their long marches, as attested by Tavernier.⁶⁰ Tents and varieties of such enclosures called *shāmyānah*, *qanāt* and the like could also be obtained on hire for four annas to Rupees two a picce per diem according to the style of the tent.⁶¹ These were usually required for public functions such as *mīlād*, *moharram*, 'urs and *qawwālīs* or for large private celebrations as at marriage parties.⁶²

Thus the amount of cloth consumed in these tents could not have been negligible at any time before the 1750s, though afterwards there appeared a sharp decline for them owing to the rapid decline of royalty and the nobility.⁶³ The tent makers were called *khayyām* according to the *Dasturul'ama*⁶⁴ and *khemadoz* according to Hoey,⁶⁵ both the terms bearing the identical meaning of tent makers. The royal *rāoti*,⁶⁶ according to Hoey used to be prepared at Lucknow for Rupees two hundred, in which twenty five webs of *guzee*, 28 webs of *dosutti* and twenty two webs of *kharwārah* cloth were used, net amounting to Rupees twenty five, thirty five and thirty respectively.⁶⁷ Usually it was the *kharwārah* cloth—a stout canvas-like material dyed red with the *āl* plant, that was used for the tents of the emperor, his sons and grandsons.⁶⁸ Red cloth covering occurs in Akbar's *gulālbārs* too.⁶⁹

People with any pretension to substance used, along with ordinary cots, beds wound with a few inches broad tape called *niwār*.⁷⁰ While a few might have indulged in silken tapes,⁷¹ cotton tapes were far more widespread. Only new thread was used in the weaving of the tape,⁷² which could be purchased at

⁵⁸ Roe, *Embassy*, II, 275; C. Farewell quoted in *Embassy*, I, 90, n. 2.

⁵⁹ Bernier, I, 353. ⁶⁰ Tavernier, I, 42.

⁶¹ Hoey, *Trade*, 134. This was in c. 1880; earlier the prices must have been much lower.

⁶² Ibid. ⁶³ *Hadiqat*, 126a. ⁶⁴ *Dastur*, 73a. ⁶⁵ Hoey, *Trade*, 132.

⁶⁶ A.A. I, 53-4. ⁶⁷ Hoey, *Trade*, 132.

⁶⁸ W. Irvine, *The Army of the Indian Mughals, Its Organisation and Administration*, London, 1903, p. 198. ⁶⁹ A.A. I, 54.

⁷⁰ *Dastur*, 73b; Badaoni, I, 494, n. 11; Moreland, *India . . . Akbar*, 183.

⁷¹ *Rahlah Ibn Battuta*, p. 120. ⁷² Hoey, *Trade*, 155.

Benaras in two grades for Rupees forty and thirty two and eight annas a maund respectively.⁷³ A century later, at Lucknow the price of this thread had gone down to Rupees twenty nine and two annas a maund;⁷⁴ the reason for this fall in price is obscure. One maund of raw cotton yielded about forty three seers of *niwār*.⁷⁵ *Niwār* weavers bore different designations in various parts of the region, such as at Allahabad it was *charkhbāfi*,⁷⁶ at Patna *niwārgar*,⁷⁷ and at Lucknow it was *niwar bāf*.⁷⁸ The retail price of *niwār* in 1880 was Rupee one per seer,⁷⁹ so that the cost of the *niwār* would be at least Rupees four, as each bed requires (at present) a minimum amount of four seers of *niwar*. Even with additional cost of its frame, the *niwār* beds could not have been rare in the homes of the region and period under review. People earning about Rupees forty to fifty a month could easily have availed themselves of it, so that the total amount of woven cotton thus required must have been in no inconsiderable quantity.

Coarse cotton fabrics were needed for packing goods, ranging from huge parcels meant for export or inland transportation,⁸⁰ down to tiny packets used for tying small articles,⁸¹ quite often in cases where paper bags would now be used. It is possible that the packing of bulkier goods such as foodgrains or raw cotton was done in sack or hemp cloth as it is referred to in both the *Ā'in i Akbari*⁸² and *Fatāwāi 'Ālamgīrī*.⁸³ But otherwise for general purposes, cotton cloth seems to have been employed more frequently for the packing of goods.

Another relatively minor use of cotton goods was for the purpose of lighting. Torches or flambeaux with one, two, three,⁸⁴ and even several branches were common,⁸⁵ for which old rags could be profitably employed.⁸⁶ These old rags seem to have been sold by weight.⁸⁷ According to the *Ā'in i Akbari* each wick

⁷³ *Papers*, I, 307. ⁷⁴ Hoey, *Trade*, 155.

⁷⁵ *Ibid.*, the maund of raw cotton here consisted of 46 seers.

⁷⁶ *Dastur*, 73b. ⁷⁷ Buchanan, II, 656.

⁷⁸ Hoey, *Trade*, 155. ⁷⁹ *Ibid.*

⁸⁰ *E.F.* 1618-21, 250 etc.; Pelsacrt, 16; Moreland, *op. cit.*, 292.

⁸¹ *Tuzuk*, I, 394. ⁸² *A.A.* I, 54. ⁸³ *Fatāwa*, 272.

⁸⁴ *Dastur*, 64a. ⁸⁵ Blockman, *A.A.* I, 49, n. n. 2.

⁸⁶ *Dastur*, 64a. ⁸⁷ *Ibid.*

of the torch required one seer of oil and half a seer of cotton.⁸⁸ In the case of candles, for every five and half a seer of boiled *charbi* (fat, grease) half a chhatak of country thread was needed which yielded numerous candles.⁸⁹

These miscellaneous products were, taken individually, no doubt of minor significance. For example, Moreland concludes with good reason that the total packing requirement then could not have amounted to a fraction of a yard per head.⁹⁰ Similarly, the amount of tape woven or camping material produced must have been trifling. But taken together the individual items reflect a very flourishing industry and one for which there still existed several avenues of expansion. We know a little more about carpet weaving and the way it spread immediately after its inception, indicates the enormous opportunities for expansion that the country's resources in this direction could afford, certainly down to the middle of the 18th century. Furthermore, these multiple uses when added together definitely represent a considerable proportion of the total output. In order to illustrate the point, let us take Moreland's estimate of half a yard of packing, and then the average of the other four uses—tents, carpets, lighting and *niwār*—making them each at a fraction of a yard (excluding lighting, as it is perhaps too insignificant) we may assume another one and half a yard per head. As in his estimate he has assigned twelve yards of cloth per head,⁹¹ these fractions become one-sixth or approximately seventeen per cent of the total per head output at Emperor Akbar's death.

Obviously, however, the primary purpose of these fabrics was and remains to clothe the people. But there are several factors that determine mankind's selection of clothing. Since the basic purpose of dressing is to protect oneself from weather, the climatic conditions have a direct bearing on the quality and quantity of clothes that one chooses. The intense heat of the long summer months of our region rendered it imperative even for the emperors and highest dignitaries of the state, with all their resources in the world, to confine their dresses to the lightest possible gauze-like muslin for their daily use as far as they could manage; ceremonial occasions demanding complete and formal

⁸⁸ A.A. I, 49. ⁸⁹ Hoey, *Trade*, 70.

⁹⁰ Moreland, *op. cit.*, 292. ⁹¹ Moreland, *op. cit.*, 292.

dressess of heavy brocades or tissues, could not but have been an ordeal to them.

Similarly, those who had to work either in the scorching heat of the open sun or in front of fire, as peasants, labourers or iron-mongers, could not bear the use of heavy or warm garments, but would wish to do with as little covering as possible. The tendency to keep themselves semi-covered was not equally pronounced amongst those who had to either perform less strenuous jobs or work inside, such as merchants, *sarāfs*, shop-keepers, tailors or writers.

Perhaps it was due to persistent practice that it became a virtue in course of time and Hindu males—by custom—did not consider it in any way indecent to be uncovered down to the waist. Even Brahmins were seldom fully attired especially when engaged in their professional duties. Indeed, still there are Hindus who prefer, if not always, at times, to take their meals with uncovered backs. On the other hand, Muslim tradition was different. Proper clothing was obligatory upon them inasmuch as their prayers (five times a day) cannot be performed unless the body and head are well covered. Thus even the new Muslim converts had to cover themselves thoroughly, though it did not matter with what, as long as their clothes were not polluted. Therefore, a Muslim weaver, tailor,⁸² or carpenter would be more careful in the matter of clothing than a Hindu of the same profession and belonging to the same level of income. Furthermore, women working inside kept themselves covered as much as ordinary decency demanded.

Personal taste also played a part in the choice of clothes. Feminine weakness for nice and abundant sets of dressess is well known. But personal taste was governed primarily by one's means. Few humble weavers could aspire to the use of *khāsa*, though none could better appreciate the beauty of its texture and fineness.

Cultural forces too were at work. The mode of dressing of the immigrant Muslim nobles was being gradually adopted by the lesser ranks, undoubtedly with modifications in accordance with the above considerations. In the same way, under the influence of Indian practice, the style of dressing of the nobility itself under-

⁸² For the tailoring profession, see *Dastur*, 73a.

went changes. For example, the shawl became popular,⁹³ in consequence of which the consumption of some of the woollen tailored garments must have declined.

Various factors were eventually responsible for a set pattern of dressing for each sectional group. From the fragmentary written sources and some illustrations pertaining to our period, we find that the following garments were in use. Where the required measurement is not stated a likely assumption has been hazarded in order to form a general idea as to the amount of cloth consumed.

Up To The Waist: The nobility⁹⁴ like Emperor Akbar, used *shalwārs*, long drawers, single, double or wadded, made out of four yards and one *girah*,⁹⁵ or seven yards and six *girahs* respectively.⁹⁶ While the top grandees would use silken stuffs for the purpose, the lesser mansabdars earning about Rupees one thousand, including the expenses of their respective contingents, would hardly be in a position to use silken stuff for their general wear. Hence cotton stuff was being far more frequently used by them.⁹⁷ The *shalwārs* of the females used to be a little higher up the ankle⁹⁸ than those of the males. By Mrs. Kindersley's time the usual drawers for women, at any rate, had become "long straight drawers,"⁹⁹ perhaps requiring lesser yardage. Abul Fazl's illustrations of the workers in the mint portray them as wearing trousers, usually loose ones. Only number six seems to have tight ones on.¹⁰⁰ The minimum requirement in these cases would be two and a half yards by one yard. This we may also take as representing the general mode of dressing of the professionals at least. Since numerically they would be much larger than the nobility, the amount of cloth required thus would be in greater quantity. Later on, during the 18th century, Sikhs also used long blue drawers as part of their military uniform,¹⁰¹ which again would require two and a half yards by one yard of material.

⁹³ A.A. I, 90; Kindersley, 195; Blockman in the A.A. I, p. xxviii; Thevenot, p. 52.

⁹⁴ Thevenot, 50; Kindersley, 194, 222.

⁹⁵ A yard has sixteen *girahs*. ⁹⁶ A.A. I, 90. ⁹⁷ Thevenot, 50.

⁹⁸ Thevenot, 50; also see *Purchas*, V, 534.

⁹⁹ Kindersley, 222; Blockman has translated Abul Fazl's term of *izār* as drawers, so that it is possible that these drawers were then also in vogue.

¹⁰⁰ A.A. I, Plate II.

¹⁰¹ *Early European Accounts*, 66.

The lower castes wore just a piece of cloth (about three yards long) to be tied round the waist,¹⁰² reaching up to the knees.¹⁰³ It required no tailoring. Mrs. Kindersley attests to the uniformity of this dress among both the Muslims and the Hindus which may imply that while some of the urban Muslims like employees in the mint of the emperor had taken to the style of their superiors, the rural or backward ones were still following the ancient practice of tying the unsewn cloth round their waist.

Shirt : We have no contemporary notice indicating the amount of cloth required for shirts. Now the standard yardage is three by one yards. It is possible that it was the same then, though the *pairāhan* or *kurta* required a little less. It was presumably being used by all those who could afford it, that is, except by the lowest ranks as may be judged by the very frequent allusions to it in the contemporary literature and the testimony of Thevenot¹⁰⁴ and Mrs. Kindersley.¹⁰⁵ According to the latter writer, a woman's shirt required more cloth as it had full sleeves and the pleated skirt reached down to the ground.¹⁰⁶ It probably required no less than seven yards' length. Usually it was made of very light and thin material for the sake of coolness.¹⁰⁷ The shirt of Hindu women reached down to the "middle" only,¹⁰⁸ so that its yardage would perhaps not exceed one and half by one yard.¹⁰⁹

Sometimes men of lower ranks—confectioners, weavers, or labourers—are depicted in the illustrations,¹¹⁰ as wearing thick or coarse cloth jackets instead of shirts. These would require a much smaller quantity of cloth, only about one and a half to two yards at the most. Since the number of such people was high, even though the jacket was used only as an alternative garment, the reduction in the total yardage required for shirting could not

¹⁰² Alberuni, I, 180; *Bābarnāma*, II, 242; R. Fitch, Ryley, 119; Mundy, II, 110; Thevenot, 53.

¹⁰³ Kindersley, 195. ¹⁰⁴ Thevenot, 51.

¹⁰⁵ Kindersley, 194. ¹⁰⁶ Ibid. ¹⁰⁷ Ibid.

¹⁰⁸ Thevenot, 53. Evidently he means blouse; the other accompanying garment described by him is *sari*.

¹⁰⁹ Actually now the standard size of material for blouse is 1×1 yard.

¹¹⁰ See Sewak Ram's drawings of professionals in the I.O.L. Add. Or. 529-532. The artist lived at Patna in c. 1770-1830. Also see Add. Or. 1111-1202, of the Manners and Customs of the Natives of India, prepared by Wellesley's orders.

be altogether insignificant. Besides, there were other people still lower in the social order who actually dispensed with the use of shirts altogether. Such was not the case only with the rural mass,¹¹¹ for the authorities indicate that even some of the urban plebians lived no better.¹¹² The total yardage required for shirts would, therefore, be much less than the total number of yards required for trousers.

Turbans : These used to be of white muslin for Muslims,¹¹³ though those of humbler origin were of coarser material and much smaller in size.¹¹⁴ Even men who went about without shirts quite often used turbans.¹¹⁵ Ordinary Muslims and Hindus presumably used medium-sized turbans, though those of the Hindus were shorter.¹¹⁶ Polier describes the turbans of the Sikhs as "mean".¹¹⁷

Women used to throw over themselves a piece of very fine material like a shawl.¹¹⁸ Thus the length of this piece was subject to a great deal of variation from about ten yards¹¹⁹ to about two and a half yards per head. Occasionally caps requiring about one square foot of cloth were worn by lesser men.¹²⁰

Upper Garments : Abul Fazl gives eleven types of upper garments, all quite distinctive and bearing separate names. The minimum cloth requirement for these garments was six and one-fourth and the maximum was eighteen yards in length, even for the wadded ones.¹²¹ European writers generally call the upper garment *jāmah* or *qabah*.¹²² It was a popular form of dress, the garment usually being made of white cotton,¹²³ though the rich naturally had silken ones made.¹²⁴ Its use was common amongst both Muslims and Hindus¹²⁵ and even the workmen of the mint

¹¹¹ Mundy, II, 110.

¹¹² Alberuni, I, 180; *Bābarnāma*, II, 242; R. Fitch, Ryley, 119; Thevenot, 53; F. Buchanan, II, 730.

¹¹³ Thevenot, 52; *Dastur* mentions turbans under cotton cloth items, f. 61a. ¹¹⁴ Thevenot, 52. ¹¹⁵ Mundy, II, 110; Kindersley, 195.

¹¹⁶ Kindersley, 195. ¹¹⁷ *Early European Accounts*, 67.

¹¹⁸ Kindersley, 222.

¹¹⁹ Thevenot, 52; he says these are 25 to 30 *ells* long.

¹²⁰ *A.A.* I, 90; and Plates I, II and III; *Dastur*, 61a.

¹²¹ *A.A.* I, 88-90.

¹²² Thevenot, 51; Kindersley, 194; for *jāmah* also see *A.A.* I, 89 and 90; for *qabah*, op. cit., 89.

¹²³ Thevenot, 51; Kindersley, 194. ¹²⁴ Thevenot, 51.

¹²⁵ Thevenot, 51; Kindersley, 195.

portrayed in the *Ā'in i Akbari* are dressed in them.¹²⁶ We may infer that all those who could possibly afford the garment, whether silken, white or of chintz,¹²⁷ wore it.

Girdles, when not of rich silk for men of quality, used to be of white cotton fabrics,¹²⁸ the purpose being to tie them round the waist over the *jāmah* or *qabah*.¹²⁹

Thus the minimum yardage required for making one set of clothes that were then in use would range from five to six yards to about forty two yards for males.

Trade : We have already had occasion to refer to the traffic in cotton cloth. The major part of its earlier history is, however, obscure. Persian chroniclers or authors not directly involved in this aspect of the industry, often mention it cursorily amidst other details, omitting all its particulars. Abul Fazl's list of prices of cotton goods is, therefore, of exceptional value, inasmuch as it reflects the internal movement of goods for which we have no earlier, or even later, concrete substantial evidence. European traders operating on account of their respective companies are usually silent about the internal traffic of goods, though from the Records of the English, it is abundantly clear that some, at least, of the resident factors were privately engaged in such transactions.¹³⁰ There are, however, references to particulars of the internal traffic in the writings of European travellers. These are again brief and scanty, but being at times the only sources available, their importance cannot be overrated. Moreover, since they are usually reliable sources in other respects, we may take their evidence at its face value, a circumstance which considerably eases the problem of the extreme inadequacy of contemporary data at our disposal. The sparse evidence of internal trade has, therefore, been treated here as illustrative of some of the general trends of the prevailing movements.

We are more fortunate with regard to material for studying the trade over the high seas. From the beginning of the 17th century the Europeans were, in the main, interested in the local piece-goods, in which they made large investments. As they

¹²⁶ *A.A.* I, Plates I, II and III. ¹²⁷ Thevenot, 51.

¹²⁸ Thevenot, 51-2; *Dastur*, 61a.

¹²⁹ Kindersley, 194; also see *A.A.* I, Plates VI and VIII.

¹³⁰ *E.F.* 1622-23, XXII, n. xxxiii n, 193, 195, 197, 200, 206, 211 and 337, to quote from one volume only.

maintained accounts for submission to their principals, we are furnished with many details of their transactions. It is generally maintained that the reports of the Dutch were far more comprehensive and systematic, but they are not available to the English readers. Consequently, we have either to depend on secondary sources for the Dutch reports or draw upon the less detailed though no less authentic accounts of the English factors. This constitutes our main source here. However, it dries up after the winding up of the Agra factory in 1654. Though the reports are resumed from Bengal by about the end of the 17th century, western parts ceased to occupy the dominant position that they had and the reports of the export of Hindustani goods become erratic.

Details relating to other outlets of piece-goods such as Kabul, Qandahar, Kashmir and Bahraich are still less known.

The traffic in cotton goods with regard to volume and frequency was considerably brisk, when viewed from the 16th-18th century standards. The mode of transportation was either by porters, beasts of burden, carts driven by oxen, or waterways. Several factors governed the alternative chosen, for example, distance. Short distances of some few miles could be easily traversed by porters, either on their account or somebody else's, provided the loads were not too heavy. Thus, for instance, the individual weavers of the suburbs, like Panipat, Sikri, Khairabad or Lakhawar, could conveniently have parcels of some pieces sent to the markets of Delhi, Agra, Lucknow or Patna. The hiring of oxen, camels or carts would entail expenditure which would not be necessary unless the bulk of the goods demanded it. The practice of collective hiring seems a possible means of conveying piece-goods, but we do not have any information about it. We have seen elsewhere how some Pathans carried bundles of cloth to Patna.

In the case of longer distances, the terrain of the intervening area and the time at the disposal of the merchants, apart from the expenses were the primary considerations in selecting the means of conveyance. Thus the goods moving to and from Delhi, Agra and Patna were usually carried over by the watery courses by the local traders.¹³¹ The Dutch realised the utility of this

¹³¹ R. Fitch, Ryley, 100; for navigation in the Chambal, see Mundy, II, p. 63.

course and urged their headquarters to let them have "flat bottomed vessels for sailing up the Ganges."¹³² The English traders, however, seldom, if ever, availed themselves of this particular means of cheap transportation, though otherwise "full use was made of the river systems of the Indus and the Ganges..."¹³³ Evidently, it was the time element that prevented the English traders from utilising the riverine routes, even when the goods had to be sent from Patna to Agra for despatch to Surat. On the Indus, textiles figured as one of the principal items of cargo,¹³⁴ a traffic so fixed by the *bania* traders that Roe's attempts to change their course were in vain.¹³⁵

For land transportation, camels, bullocks, or ox-driven carts were used over long distances. In the western parts of Hindustan camels with an average capacity of ten maunds of weight¹³⁶ were frequently used for carrying cotton goods. Thus for a journey from Agra to Ahmadabad¹³⁷ the English used to hire them at the rate of Rupees fifteen and three annas per camel-load,¹³⁸ and from Agra to Surat (via Burhanpur) the rate per camel-load varied from Rupees twelve and eight annas¹³⁹ to Rupees fourteen and twelve annas.¹⁴⁰ Travelling was generally undertaken in caravans¹⁴¹ in order to ensure safety on the way. Normally camels could be had in any number at Agra, but at times their supply would run out, under, for example, such contingencies as imperial requisitions.¹⁴²

The employment of ox-driven carts over long distances over land routes was, however, far more frequent. They were, as Roe noted, best suited for the purpose. They were cheaper than the camels for each could carry three camel-loads, they could draw all day whereas the camels could not go beyond five hours a

¹³² *Dutch Records*, 1629-34, Vol. IX, p. ccxxii, 5.

¹³³ Moreland, *India at the Death of Akbar*, 241.

¹³⁴ *Ibid.*, 243; without specifying cotton goods, for the use of this route see *E.F.* 1637-41, 135.

¹³⁵ Roe, *Embassy*, II, 476.

¹³⁶ *A.A.* I, 151; Sorley, *Shah* etc., Book I, p. 40.

¹³⁷ *E.F.* 1632-34, p. 52; *E.F.* 1646-51, 299; *E.F.* 1651-54, p. 52.

¹³⁸ *E.F.* 1651-54, p. 52. ¹³⁹ *E.F.* 1618-21, p. 47.

¹⁴⁰ *E.F.* 1618-21, p. 74.

¹⁴¹ Roe, *Embassy*, II, 355, 477; *E.F.* 1618-21, 73-4; *E.F.* 1622-23, p. 8; *E.F.* 1634-36, p. 3; *E.F.*, Fawcett, I, 1670-77, p. 274.

¹⁴² *E.F.* 1618-21, 340; *E.F.* 1624-29, 70.

day, and the labour of continual packing and unpacking of the goods *en route* was eliminated.¹⁴³ In fact, large carts drawn by six or more oxen could carry as many as forty four or even eighty one maunds of weight.¹⁴⁴ These giant-sized carts are not, however, indicated by our sources as being used for the conveyance of picec-goods. Their hiring rates were determined by the distance to be covered as well as on the basis of the time to be taken and the weight carried. Thus from Samana to Surat via Agra and Burhanpur the cart hire cost Rupees three per maund, though the usual rate was only Rupees two per maund;¹⁴⁵ from Agra to Lahore when the *lashkar* (army) was not in the way to interrupt their progress, it was normally less than Rupees two per maund; from Lahore to Multan (by land?) Rupees two and a half per maund; and from Sirihind to Lahore three-fourth of a rupee (12 annas) per maund.¹⁴⁶ There was generally no trouble with the availability of carts, but on certain occasions they did become scarce, thereby causing considerable delay in the dispatch of goods.¹⁴⁷ During the rains the roads filled up with mud and mire and carts were of no use,¹⁴⁸ so that traders avoided transporting during the rainy season.

These land routes were, by contemporary standards, relatively safe, especially those of the eastern parts to and from Patna.¹⁴⁹ Nevertheless, since there was always some risk of robbers,¹⁵⁰ it was necessary to furnish these *qafilās* with security measures. Jats¹⁵¹ and *tirandāz*¹⁵² (bowmen) used to be employed to accompany the caravans of goods under some superintendent¹⁵³ in order to meet such emergencies. As regards the method of payment to the cartsmen, while a part used to be paid at the starting point,¹⁵⁴ the balance was retained, pending the delivery of the goods at the

¹⁴³ Roe, *Embassy*, II, 353.

¹⁴⁴ Hughes, quoted by R. K. Mukerji, *The Economic History etc.*, p. 118.

¹⁴⁵ *E.F.* 1622-23, p. 90.

¹⁴⁶ *E.F.* 1637-41, 135. The rate charges from Patna to Agra have been seen earlier.

¹⁴⁷ *E.F.* 1646-51, 13. ¹⁴⁸ *E.F.* 1618-21, 258; *E.F.* 1646-51, 146.

¹⁴⁹ *E.F.* 1618-21, 269. ¹⁵⁰ *E.F.* 1642-45, 304; *E.F.* 1670-77, 192.

¹⁵¹ *E.F.* 1622-23, 90. ¹⁵² *E.F.* 1618-21, 256.

¹⁵³ *E.F.* 1646-51, 220; also see *E.F.* 1618-21, 256.

¹⁵⁴ *E.F.* 1622-23, 90; *E.F.* 1646-51, 221.

other end.¹⁵⁵ An Englishman used to be appointed as *mir-i-qāfilah* as a measure of safeguarding the *qāfilah* from transit dues.¹⁵⁶ This was because, apart from the general orders, the foreign merchants used to be equipped with the specific imperial *farmāns* and *nishāns* for exemption from all *rāhḍaris* within the imperial dominion,¹⁵⁷ and they stood a better chance of escaping demands made by insubordinate chiefs in violation of the imperial orders.¹⁵⁸ Furthermore, even in cases where these undue payments had been already made in order to avoid additional trouble, the Englishmen could hope for restitutions which quite often went through successfully.¹⁵⁹ Even so, the Dutch regarded the price of carriage and duty paid at Agra lower than that paid at the most flourishing period of trade in Broach or Baroda.¹⁶⁰ This statement merely goes to establish the relative vigour of the imperial control in the two respective places—around the capital Agra and the rather distant cities of Baroda and Baroach—in c. 1634. When by the last decades of the 17th century, imperial control had weakened, demand for unauthorised transit dues and custom levies became general and the insecurity of transportation increased, even on the principal highways especially of the western parts. These conditions naturally adversely affected the trade in piece-goods, and the worsening situation did not at all favour the continuance of a flourishing traffic. The impact of political deterioration on the trade in piece-goods was equally serious.

The internal traffic in cotton fabrics may, according to the available data, be divided under three heads: goods arriving in a city for its own consumption, movement of unfinished goods for further treatment and goods reaching places—towns or cities—merely in transit.

The list of prices of cotton goods quoted by Abul Fazl from Agra, reflects that the Capital used to import them from many parts of Hindustan and India. Incidentally, here no foreign variety is mentioned, evidently because none was imported. It is regrettable, that our author does not indicate the origin of

¹⁵⁵ *E.F.* 1622-23, 90.

¹⁵⁶ *E.F.* 1618-21, 269-70.

¹⁵⁷ *Dutch Records*, First Series, Vol. VI, 1621-25, p. cc, 6; *E.F.* 1624-29, 76; *E.F.* 1651-54, 38, 84.

¹⁵⁸ *E.F.* 1651-54, 26.

¹⁵⁹ *E.F.* 1651-54, 11, 26, 38.

¹⁶⁰ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 3.

the varieties mentioned with the exception of those brought from the Deccan. We may, however, trace their origin from other sources. Thus reverting to our table of varieties, we may deduce that goods were being collected from all parts of India for sale in the Agra bazar. For example, *khāsa* and *chautār* from Saharanpur; *Gangajal*, *jhona*, *Mihirkul* and *mandīl* from Benaras; or *johna* and *Mihirkul* from Allahabad, Mau and Jalalabad; *Sālu* from Burhanpur and Sirihind and chintz from Sirihind, Delhi, Lahore and Shahzadpur and so on. The wide difference between the minimum and maximum prices of Abul Fazl, may also mean that similar varieties of goods were obtained from different places, besides the local produce.

There is, however, some direct evidence relating to the imports and exports of goods within Hindustan, of which some have already been referred to in the course of the treatment of the cities, for instance, goods arriving at Patna from Bengal, Orissa and Upper India. The major part of these goods was, no doubt, in transit, but it is possible that some quantity was being retained for local consumption. The same situation was perhaps equally applicable to other towns moving upwards along the Ganges.

The quantity and quality of imported goods, would naturally, to a large extent, be determined by the size and character of a town or a city at a particular period. Thus, for example, the volume of imports at Patna during the 16th century when it was merely an unimportant town, must have been meagre while by Manrique's time when its population mounted up to over two lakhs, it must have risen accordingly, in respect to both the quantity and quality of the goods. Similarly, the volume and quality of imports at the capital cities would be far in excess of those of the lesser towns such as Samanah, Shahzadpur, Alamehand, Biana or Qanauj. Because the total number of consumers as well as the customers of quality goods would, perhaps in one of the former groups, have been equal or even more than in all of the latter group put together. Undoubtedly, the bulk of the population in any city town would depend on the products of local looms for its supplies, but the object of import was obviously to cater for the needs of better-off consumers who could indulge their tastes and gain by the newly introduced varieties.

The movement of goods while still in the process of comple-

tion is referred to mainly by the English factors. It is, however, more than likely that the same practice was generally followed. For example, it may be assumed that the dyers mentioned in the *Nuskha-Khulāsātul-Mujerrebāt* or the tie-dyers of Delhi would not confine their trade to the local products but would extend it to the goods received from elsewhere as well. In fact, it appears that the *guzees*, *khairabadis*, *mercools* or *Akbaris* which were most frequently subjected to plain dyeing or printing were being treated so in towns or cities other than those of their origin, thereby occasioning a constant movement of goods to and fro. The Lucknow or Farrukhabad printers of quilts or bedcovers or the Delhi tie-dyers of apparel goods might have used *guzees* produced elsewhere. Occasionally, the English factors also found it more convenient to buy goods in one place and have them dyed elsewhere. For example, it suited them better to get the *guzees* and *Akbaris* and other Agra calicoes dyed and "transformed in *cannekins*, *byrāmis* and *ardeas*" in Gujarat, about a thousand miles away from the capital.¹⁶¹ Similarly, they used to get *Akbaris* "pintadoed" at Ahmadabad.¹⁶² In fact, this practice of getting goods dyed or printed in some other part of the country was more or less usual, especially after 1630 or so.

Neither could the local bleachers perform their jobs to the satisfaction of the foreign buyers, dyers and printers, so that the unbleached goods used to travel long distances for bleaching.¹⁶³ Special bleaching necessary for dyeing and printing also occasioned considerable movement of goods to and fro. We have seen how *Khairabadis*, *Daryabadis* or *Amerteas* used to be bleached at Lucknow and Patna. In short, we may say that specialisation in the allied crafts such as bleaching, dyeing and printing led to a considerable amount of traffic in cotton goods. This inference would, however, hold good only when large consignments such as were handled by either the native merchants or companies operating on a large scale were in question. For the individual trader the process was presumably too involved and expensive for him to adopt. For example, from the references to Central Asian merchants in the European sources, we gather that they usually bought ready goods, from as far east as Patna,

¹⁶¹ E.F. 1642-45, p. 137. ¹⁶² E.F. 1646-51, 277, 296.

¹⁶³ This aspect has been covered earlier.

making their investments at places of their choice, collecting their goods and leaving for homeward journey. Although chintz occurred largely in their purchase,¹⁶⁴ there is no evidence to show that they got the printing on their cloth done to order.

Lahore, Agra, Bahraich, Benaras and Patna were the chief *entrepôts* for goods collected from all directions. Thus Lahore handled goods from its adjoining areas, southern and western regions in order to forward them to Agra. Similarly, goods received at Agra from Sind, Multan, Delhi, Ahmadabad, Burhanpur, Lucknow, Benaras and Patna were in larger volume and awaited further distribution.¹⁶⁵ At Bahraich those goods were received which were in transit to the northern countries of Tibet and Nepal.¹⁶⁶ Benaras and Patna were the main *entrepôts* for the goods moving between the capital towns and Bengal.

Two factors, among others, particularly enlarged the transit traffic of the cotton goods in Hindustan during our period. By virtue of being a landlocked area, goods had to be moved over long distances in order to reach some point, from where they (goods) could be embarked for export overseas. For example, the Farrukhabad or Benaras consignments had to pass through Agra, Lahore and Multan, in order to reach Lahiri Bunder on the river Sind; or Agra, Ajmer and so on to reach Surat via Ahmadabad. Secondly, the existence of a network of riverine routes in Hindustan was a source of great encouragement to internal traffic in general. The major part of the transit trade, especially after the 17th century, used to be carried on through these routes.

The internal traffic in piece-goods seems to have been concentrated mainly in the hands of the native traders, though there is evidence showing that European traders also participated in it at times. The East India Company traders indulged in it as a private sideline.¹⁶⁷ The Dutch were, however, not very optimistic about their chances in this private inland trade. Evidently, the Dutch were right in their estimation, as it did not at any period amount to much. The Dutch, on the other hand, operated openly and usually on behalf of their company. Thus, for example, in

¹⁶⁴ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 7.

¹⁶⁵ See Chapter I. ¹⁶⁶ *A.A.* II. 183 or see Chapter III.

¹⁶⁷ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 21; *E.F.* 1618-21, 188.

the very first few months of the installation of their factory at Agra in 1634, they had, on 30th June (1634), bought 36,000 pieces of cotton cloth from Agra alone in order to sell them within the land.¹⁶⁸ But the period of the Dutch ascendancy was brief and very soon their project fizzled out, leaving hardly any traces on the native-controlled inland traffic. Indeed, there were Portuguese and Central Asian merchants¹⁶⁹ as well engaged in making large investments in cotton goods, but these again were interested primarily in exporting their goods rather than retailing them within. And this non-interference in the internal traffic by the foreign merchants persisted till the very end of our period.

Several factors appear to have been responsible for preventing the foreign traders from undertaking any consistent large-scale enterprise within the country. The native traders were, of course, firmly established with their roots spread all over the country. They would have presented insurmountable competition. The erratic individual interruptions to competition with foreign elements operating on a private basis, were perhaps overlooked by the native traders. Their position was strong enough to allow them to watch the futile attempts of the foreigners complacently from a distance. From the point of view of the foreign merchants, it was neither very profitable nor easy to engage in this business. First, they did not here enjoy such state privileges as they did in respect to foreign trade. Secondly, the margin of profit from the sale of Hindustani piece-goods abroad was much higher than the traders could ever hope for within the country. Finally, the general reluctance of the local population to buy from foreign shop-keepers weighed heavily against them. It was, hence, scarcely worthwhile for the foreign elements to get involved in this inland traffic of piece-goods. Thus throughout our entire period, the local merchants were left free from any serious European competition in internal trade of piece-goods in Hindustan.

Organisation: We know very little of the way in which their operations were conducted. Nevertheless, by piecing together the stray and scanty extant evidence we get the following picture. The weavers produced goods either on their own account or on

¹⁶⁸ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 3.

¹⁶⁹ *E.F.* 1618-21, 46; *E.F.* 1642-45, 60.

that of some merchant—more than one merchant was also perhaps possible as the *Fatāwā'-i-Ālamgīrī* refers to two partners in business.¹⁷⁰ When not producing goods on their own account, the weavers accepted advances for executing orders for carpet¹⁷¹ or cloth¹⁷² according to specifications as to size and variety.¹⁷³ The date of delivery too was fixed,¹⁷⁴ and after the delivery of goods, the contract being automatically discharged,¹⁷⁵ the weaver was once again free to decide the course of his future actions. It was, however, not necessary for the merchants to contract business directly with the weavers. One or two agents could be appointed by the merchants with instructions,¹⁷⁶ and particulars relating to the goods. The advance could also be made through the agent or agents who were not empowered to appoint their own substitutes.¹⁷⁷ These agents were of various grades, all of them acting as intermediaries between the weavers and merchants, the *gumāshtah* or agents' agent was called a broker or *dallāl*,¹⁷⁸ and below them ranked the *paikārs*.¹⁷⁹ The *gumāshtahs* and brokers abounded in all cities and towns, but '*Ājā'ib i Duniya* imparts a bit of useful information in this connection, that at Sirhind the profession of the converted *khoja* Muslims was brokerage in cloth.¹⁸⁰

The ready cloth appears to have been collected together in a market as at Tājgunj near Agra¹⁸¹ or in Benaras,¹⁸² where the state officers stamped their seals on each piece.¹⁸³ In fact, it seems that the government levied a duty on each transaction and the merchants—cloth dealers—were required to fill in a bond called *muchilka* in the vernacular, pledging that they would report all business deals to the *kotwāl*. At all events, it was so at Hanswa, a town in the sarkar of Kara and subah of Allahabad

¹⁷⁰ *Fatāwā*, 225. ¹⁷¹ *E.F.* 1618-21, 161; *Fatāwā*, 267.

¹⁷² *Fatāwā*, 267; Kindersley, 242-3. ¹⁷³ *Fatāwā*, 267.

¹⁷⁴ *Fatāwā*, Introduction xlix; Bolts, 193. ¹⁷⁵ *Fatāwā*, 5-6.

¹⁷⁶ *Fatāwā*, 287; *E.F.* 1634-36, 298; Bolts, 191; for the appointment of brokers by the *kotwals*, see *A.A.* II, 44.s.

¹⁷⁷ *Fatāwā*, 287; Bolts, 193.

¹⁷⁸ Mundy, II, 146; Bolts, 193. ¹⁷⁹ Bolts, 193.

¹⁸⁰ '*Ājā'ib*', 186a. ¹⁸¹ Tavernier, I, 110.

¹⁸² *Ibid.*, 118. Buchanan from Patna reported that "the native traders have established twenty two houses for the purchase of cloth," II, 652.

¹⁸³ *Dastur*, 173b.

in 1145 A.H.¹⁸⁴ The levying of the duty is uncorroborated, but if it was really being levied then this would further explain the interest of the state in promoting the industry. Moreover, as the duty was a kind of sales tax, the interest of the weavers would not suffer as long as the prices paid were according to the state regulations. We have seen Abul Fazl's prices, but there are none other of the Mughal rulers to show that Emperor Akbar's practice was being followed by his successors. Governor General Hastings' price regulations in 1781¹⁸⁵ may be interpreted as an English innovation rather than the continuation of a local system. There is, however, Bolts' testimony that the ready cloth used to be collected in a warehouse, where the "*gumāshtah* at his convenience sorts them out and fixes the price of each piece with the help of *jāchnedār* or assorter."¹⁸⁶ The presence of the "assorter" is significant, and even more so when we view him as a part of pre-Diwani set-up, for Bolts does not regard him as a new addition and there is no evidence to show that the entire functional structure had been overhauled at Patna by the English within less than a decade of the establishment of their rule over the province. We may, therefore, assume that the assorter existed under the Mughals. His very post would have been rendered superfluous had there not been some price control legislation covering all the varieties, with their grades, being produced currently. In view of these supporting arguments as well as of the fact that a regular department for fixing a fair price (called *diwān i riyāsāt*) existed throughout the Sultanate period,¹⁸⁷ we may generalise that Akbar's successors too had some sort of arrangement for ascertaining and fixing the prices of goods.

Thus, under the circumstances, the stamping of goods by state officers would serve as a security against the weavers being cheated by the merchants or their henchmen. The gain to the treasury through this means must have been meagre. The measure, however, helped it to keep a check on the dealers of cloth. The merchants then retailed the goods as they were to

¹⁸⁴ *Dastur*, 173b. A similar levy is mentioned by 'Ilm i Navisindigī, 77a.

¹⁸⁵ *Papers*, I, 305-6. ¹⁸⁶ Bolts, 193.

¹⁸⁷ Ishtiaq Husain Qureshi, *The Administration of the Sultanate of Delhi*, Lahore, 1942, pp. 160-64.

the wholesale dealers or else had them further treated and then disposed them off. Here again the well-informed and resourceful *gumāshthahs* or brokers would step in to negotiate the sale on behalf of the merchants. The foreign buyers depended largely on the services rendered by these brokers in order to transact their business successfully.¹⁸⁸

The local dealers of cotton goods (called *bazzāz* in the vernacular)¹⁸⁹ seem usually to have obtained their supplies from the big merchants, unless they happened to buy either directly from the weavers¹⁹⁰ or from the large cloth markets where state stamping was done. In the event of either of the two latter procedures, the city *bazzāz* could avoid the *thokfarosh* or the wholesale dealers, and thus effect a saving. After every cash deal the *bazzāz* issued a receipt (termed as *Shirah Qabzul Wasool*)¹⁹¹ to the customer. The *Dasturulamal* illustrates the method of writing this out, as was done by Nand son of Ramchand and Ramkishan (?) resident of Daranagar in the pargana of Kara and subah of Allahabad for Rupees 455 as the payment of twenty corges of red (unintelligible) and 500 yards of white *silhāti* in favour of Jān Nisar Khan the local *faujdār* on the 1st of *Jamādi us sāni* 1145 A.H.¹⁹² This system reflects a regular maintenance of daily accounts, a fact which is supported by Hoey at a later date.¹⁹³ Indeed, he also asserts that they also entered into their account books the goods sold on credit, the daily incomes '*jam'a*' and payments '*nam*', so that a glance through their pages would reveal all the necessary details.¹⁹⁴ How interesting it would have been to us had any of such accounts survived. Eminent cloth dealers are sometimes mentioned by the English sources, such as Bhagwanti Das of Agra;¹⁹⁵ their business records, however, have so far been untraceable.

The third class of *bazzāz* were the petty pedlars or *pheriwālās*, who not only traded within the cities and towns but also included contiguous villages in the occasional rounds of their visits. Considering the circumstances they did not insist either on immediate or cash payment for their goods. The debt could be paid

¹⁸⁸ See above.

¹⁸⁹ Hoey, *Trade*, 70; *Dastur*, 173b.

¹⁹⁰ Hoey, *Trade*, 70. ¹⁹¹ *Dastur*, 170b.

¹⁹² *Dastur*, 170b. ¹⁹³ Hoey, *Trade*, 70.

¹⁹⁴ *Ibid.*, 71. ¹⁹⁵ P. Mundy, II, 140.

in kind when the cultivator harvested his crops.¹⁹⁶ There was another substantial right enjoyed by the purchaser of cotton goods in the form of *dasturi* or commission.¹⁹⁷ It was a well-known local custom and was allowed on all occasions of sale of goods though the rate seems to have varied considerably. For example, Hughes reported from Patna that it was six or seven per cent in 1619,¹⁹⁸ while in January 1652 the deduction went up as high as thirteen per cent.¹⁹⁹

Export Trade: Our region from Lahore to Patna is a land-locked area and the commercial intercourse with countries across the high seas had to be maintained through ports situated in the coastal provinces. The principal outlets for maritime commerce in 1556 were through Lahiri Bunder (in Sind) and Gujarat ports which were reached by river Sind and the overland route running from Agra to Ahmedabad or Agra to Surat via Burhanpur. Thus, whereas Agra acted as an *entrepôt* for goods moving up and down the southern ports, Lahore handled the goods transported to and from Lahiri Bunder. The subsequent extension of the imperial rule over Gujarat in 1573²⁰⁰ and Sind in 1591²⁰¹ greatly accelerated the traffic in which cotton goods had even earlier occupied the most prominent position.²⁰² There is no direct evidence to indicate the actual volume, variety or frequency of the Hindustani consignments moving out of the ports but it seems reasonable to infer, that when surplus goods were being produced and the traffic up and down the routes was fairly frequent, then the goods would evidently be exported through them, even prior to their annexation.

But the impact of the conquest of part of Bengal including its ports between 1575 and 1586²⁰³ was far more profound. The Bengal seaport had special advantages. First, it lay close to the south-eastern points which happened to be among the principal markets for the Indian cotton goods and shall be seen presently. Secondly, it afforded a through riverine route running up the

¹⁹⁶ Hoey, *Trade*, 70-1.

¹⁹⁷ E.F. 1618-21, 163; E.F. 1651-54, 113.

¹⁹⁸ E.F. 1618-21, 163.

¹⁹⁹ E.F. 1651-54, 107.

²⁰⁰ A.N. III.

²⁰¹ A.N. III, 920.

²⁰² Varthema, p. 46; Barbosa, *The Coast of Africa and Malabar in the beginning of 16th century*, tr. H.E.J. Stanley, Hakl. Soc., London, 1866, p. 28; C. Frederick, Hakl. Voyages, III, p. 206; *Mīrāt-i-Ahmadi*, I, 15.

²⁰³ A.N. III, 722.

entire course from Chittagong²⁰⁴ and Satgaon,²⁰⁵ to Agra and Delhi. But, in contrast to the position on the western coast, during the best part of the 16th century, there were no established carriers over the high seas. The erstwhile Muslim traders had been effectively and permanently dislodged from the Indian Ocean by the Portuguese.²⁰⁶ Evidently, it was the realisation of the dire need for the outflow of goods in order to maintain the economic equilibrium of the country that had obliged Emperor Akbar to admit the Portuguese. In 1579, he granted them the port of Hugli,²⁰⁷ exclusive of the right to fortify or police it,²⁰⁸ so that their dominant naval power might enable them to establish a steady and flourishing trade in these parts, as they had done on the western coast. This measure would certainly ensure an uninterrupted and cheaper mode of egress for the Hindustani goods. Incidentally, this ostensibly favourable concession to the Portuguese on the eastern coast, appears quite intriguing when viewed from Agra, as the emperor had consistently foreborne from acceding to their similar requests on the mainland of Gujarat, apart, of course, from their former possessions of Goa²⁰⁹ or Diu,²¹⁰ which in any case lay beyond the emperor's reach. But viewed from the Bengal angle the problem resolves itself, and the Emperor Akbar no longer appears as a whimsical oriental potentate, but as a judicious and astute statesman who was shrewdly using the Portuguese oceanic powers for the benefit of his own empire.

In the north, the exit of the goods was effected by overland routes through Kabul to Persia and farther west and north,

²⁰⁴ Ibid., 153.

²⁰⁵ R. Fitch, Ryley, 100.

²⁰⁶ M. L. Dames, *The Portuguese and the Turks in the Indian Ocean*, *J. R. A. S.*, 1921, Jan., Part I, pp. 2-25.

²⁰⁷ The Imperial Farman was granted to a Tavares whom Abul Fazl calls Partah Bir Firingi, *A.N.* III, 349-50.

²⁰⁸ Pyrard, I, 334.

²⁰⁹ Goa was finally occupied by the Portuguese as early as 1511, see M. L. Dames, *op. cit.*, p. 11; F. C. Danvers, *Portuguese in India, Report to the Secretary of State for India*, London, 1892, p. 5. He gives 25th November 1510 as the date of the capture of Goa.

²¹⁰ Sultan Bahadur Shah of Gujarat had ceded Diu to the Portuguese in 1530 as a condition of their help against Humayun's attack, see M. L. Dames, *op. cit.*, p. 16; *Mī'rāt i Sikandari*, tr. F. L. Faridi, Dharampur, 1889, pp. 198-9; *Cambridge History of India*, III, p. 333.

through Lahore to Kashmir and beyond and through Bahraich to the northern mountains. The means of transportation here were porters, packed camels, horses, mules and ponies.

Kabul Trade: Kabul was a long-established trade route through which the several thousand strong caravans carried, amongst other things, large quantities of cotton cloth. For example, Babar noticed a great quantity of white cotton cloth amongst the exported commodities.²¹¹ Few decades later, Jenkinson observed at Bukhara the import of white cotton goods from India by the annual loaded caravans issuing out of Kabul—(India).²¹² After Akbar's accession Kabul formed a subsidiary province under Mirza Hakim, but it was formally incorporated in the empire at his death in 993/1585.²¹³ This measure, coupled with the construction of a bridge at Attock by Akbar in 1581,²¹⁴ must have greatly stimulated the traffic through Kabul. The imperial posts were stationed on the main highway up to Lahore, which eliminated the detour usually made in order to avoid the robber-infested parts and thereby reduce the duration of the journey from three months to twenty five days.²¹⁵ The construction of the bridge must have removed the earlier inconvenience described by Babar in crossing the river Sind.²¹⁶

Abul Fazl regarded Kabul as the appropriate portal of foreign travels²¹⁷ and trade. He did not, however, specify the goods imported and exported nor does he give us any other details regarding this trade. Since the principal commodity exported through Kabul was cotton goods, let us arbitrarily fix its volume at fifty per cent of the aggregate export trade. According to our earlier computation it would yield cotton goods worth Rupees 61,50,000 moving out annually through Kabul.²¹⁸ The traders were usually the Persian, Mughal and Armenian merchants²¹⁹ who used to come to Hindustan for investment in cotton goods. These foreign merchants were scattered all over the important cities and towns, especially in the western parts,

²¹¹ *Bābarnama*, I, 260.

²¹² Jenkinson, *Hakluyts Voyages*, London, 1927, Vol. I, p. 458.

²¹³ *A.N.* III, 703. ²¹⁴ *Ibid.*, 523.

²¹⁵ De Laet, 56; also see p. 57. ²¹⁶ *Bābarnama*, I, 224.

²¹⁷ *A.A.* II, 409, also see *Tuzuk*, I, 47. ²¹⁸ See earlier Chapter I.

²¹⁹ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 7; *E.F.* 1646-51, 335-6.

engaged in business.²²⁰ In Delhi they concentrated mostly on chintz.²²¹ The Dutch traders, in June 1634, were quite mystified "that notwithstanding the enormous expenses of carriage and duties these merchants make large profits," and the Dutch Company issued an order for making enquiries about them at Agra²²² and elsewhere. Earlier, Babar too had attested to the lucrative nature of their trade; ". . . there are," he wrote, "many merchants who are not satisfied with getting 30 to 40 to (for) 10 or (300% to 400%²²³)".

Kashmir used to import cotton yarns and ordinary cotton goods,²²⁴ as well as unbleached cloth from Hindustan.²²⁵ Later on, when the Lahore route became hazardous, the traffic was being conducted through Najibabad, which commanded the Lal Dang passes of Kashmir.²²⁶ The one hundred mule *qāfilahs* consisting of, amongst others, agents of merchants of Lucknow, Farrukhabad and Benaras, used to leave Bahraich for Kashmir via Najibabad.²²⁷ Forsters also met a party at Hardwar that was transporting cotton to Nahu (in Kashmir).²²⁸

Mirza Haidar Dulghāt has related that the nomads of Tibet with their goods loaded on the mules, used to descend the slopes, reaching Bahraich every alternate winter. They exchanged their goods for cotton fabrics and other commodities (as grain, sweets or rice). A single nomad sometimes carried as many as 10,000 sheep-loads of twelve man each,²²⁹ so that each consignment carried by such men would amount to 1,20,000 maunds. But this was not the only means employed, for coolies and goats²³⁰ also figured in the caravans. As all the particulars of these caravans, like the volume of cotton goods, the number of beasts or men employed for any particular year or period, or the total volume of goods exported, remain unspecified, it is not possible for us to determine even roughly the amount of cotton goods thus

²²⁰ See Chapters I, II, III. ²²¹ *E.F.* 1637-41, 134.

²²² *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 7.

²²³ *Babarnama* I, 219.

²²⁴ *Waqā'i i Jahāngīrī*, tr. Elliot and Dowson, VI, p. 372; see *Tārīkh i Rashīdī* by Mirza Haidar Dulghāt, tr. by D. Ross, London, 1895, p. 409, for the treatment of this trade, though he does not name Bahraich.

²²⁵ Pelsaert, 36.

²²⁶ Forsters, I, 190.

²²⁷ *Ibid.*, 195.

²²⁸ *Ibid.*, 196.

²²⁹ *Tārīkh i Rashīdī*, p. 408.

²³⁰ *Khulāsāt*, 32.

exported. Indeed, even the subsequent writers like Abul Fazl,²³¹ or Sajan Rai²³² who do mention cloth in the list of outgoing consignments, do not furnish us with these details. Abul Fazl, however, particularises the fabrics as being both white and coloured stuffs.²³³ Surprisingly enough, the 18th century Persian writers do not give any details of the export trade of Bahraich; indeed, they do not even mention it, although the imported commodities at this point are frequently enumerated.²³⁴

Under the circumstances, it is not possible to ascertain the volume of cotton goods exported through these land routes. Indeed, even the approximate strength of the loaded beasts in the caravans is not definite. Their frequency is equally vague. But considering the fact that the outgoing caravans covered the additional regions of Kashghar,²³⁵ Bukhara²³⁶ and even China,²³⁷ it seems reasonable to infer that the number of loaded beasts on the return trip would be higher than that of the incoming caravans. Furthermore, after the recovery of Qandahar in 1603, goods used to pass out of Bolan Pass as well and J. N. Sarkar estimates their annual number at 14,000 loaded camels²³⁸ with an indeterminate amount of cotton goods. Notwithstanding these elements of uncertainty, W. H. Moreland, with the data available to him, has hazarded an estimate of three to one and a half million square yards of cotton goods as being the average export through these channels.²³⁹

The rise of the unruly Sikhs in the 18th century by degrees totally eclipsed the Kabul trade. The emergence of diverted routes through Jaipur²⁴⁰ and Najibabad²⁴¹ could, even after their stabilisation, hardly have been expected to reach the Kabul magnitude. Consequently, the bulk of cotton goods destined for the central and northern Asian markets would find recourse to the eastern riverine and oceanic voyages.

²³¹ A.A. II, 183. ²³² *Khulāsat*, 32. ²³³ A.A. II, 183, n.

²³⁴ *Hadiqat*, 153; *Haqiqat*, 45a-b; *Āftābnuma*, 270b.

²³⁵ De Laet, 57. ²³⁶ Jenkinson, *Hakl. Voy.*, I, 457; A.A. I, 68-9.

²³⁷ C. Frederick, *Hakl. Voy.*, III, 233.

²³⁸ J. N. Sarkar, *Mughal Administration*, 133; *Tuzuk*, I, 47.

²³⁹ Moreland, *Indian Export of Cotton Goods in the 17th Century*, *Indian Journal of Economics*, V, Part III, 1921, p. 245. Tarikh Rashidi's evidence is, however, not included by Moreland.

²⁴⁰ See above.

²⁴¹ Forsters, I, 190.

The specific details of the oceanic export of cotton goods during Akbar's days are very meagre indeed. From the foregoing pages it is, however, abundantly clear that it was of considerable dimensions by 16th century standards. Early in the next reign, the emperor Jahangir accorded trading rights to the Dutch and the English as well, though the Portuguese traders were still active on the western and eastern coasts,²⁴² exporting, as usual, large quantities of cotton goods. It is possible that besides other factors (like maintaining the balance of power amongst these traders) the Mughal emperor in granting commercial facilities to the new-comers was influenced by the inadequacy of the Portuguese traders alone to handle all of the exportable goods. For, if we assume that the Portuguese traffic met the entire commercial requirements effectively, then it would be reasonable to expect that the large additional exports of cotton goods by the Dutch and the English Companies occasioned a serious dearth internally. Yet not only is no such scarcity reported from any part of Hindustan by any factor, traveller, or writer, but the market, even after the additional investments, seems to have remained as flooded with goods as ever. The only deterrent in the path of these factors for further investments was the almost eternal cry of insufficient purchasing power.²⁴³ Furthermore, when in 1630 the Gujarat supplies failed on account of three consecutive seasons of famine²⁴⁴ and the English and the Dutch wished to make their investment, they converged towards Agra and elsewhere in Hindustan, which was able to meet and fulfil their demands successfully. Subsequently, these demands fell off, evidently owing to freight charges as its substitutes originated at the coastal provinces of Madras.²⁴⁵

In fact, a systematic survey of the exports from Hindustan as given in the East India Company records would help us in formulating these inferences better. The following Table gives the export trade of the English factors in cotton goods from Hindustan between 1618-1667:

²⁴² See above. ²⁴³ See above.

²⁴⁴ Elliot and Dowson, quoting from *Badshahnama*, Vol. VII, p. 24.

²⁴⁵ Moreland, *I.J.E.*, Vol. V, Part III, 1921, p. 23.

THE EXPORT TRADE IN COTTON GOODS BY THE ENGLISH FACTORS FROM HINDUSTAN
FROM 1618-1667

Date	Variety	Procured from	Volume	Prices	Reference
1. 12. 1618	Calicoes	Agra	20 bales	—	E.F., 1618-21, 46.
"	Carpets	"	6 bales	—	Ibid.
20. 2. 1619	Semianos	"	14 fardles	—	Ibid., 73.
"	Carpets	"	11 packs	—	Ibid.
"	<i>Amertees</i>	"	7 fardles	—	Ibid.
"	<i>Mandeels</i>	"	2 fardles	—	Ibid.
9th & 15th 2. 1619	Carpets	Lahore	—	—	Ibid., 51.
"	Semianos	Agra	6000 pieces	—	Ibid., pp. 51 and 58.
"	Carpets	"	46 pieces	3,930 mahmudis	Ibid., 61.
"	Semianos	Agra	2330 pieces	14,075 mahmudis	Ibid.
"	<i>Sahan</i>	"	50 pieces	431 mahmudis	Ibid.
16. 3. 1619	Chintz	"	200 pieces	—	Ibid., 184.
10. 4. 1619	<i>Chautārs</i>	"	60 pieces	Rupees 600	Ibid., 93.
15. 12. 1619	Semianos	"	—	Rupees 2½ to 4½ per piece	Ibid., 161.
10. 1. 1620	Semianos, <i>Sahan</i>	Agra, Lahore and <i>Amertees</i> Samana	—	—	—
	Carpets, Chintz, Bengal goods, Quilts, <i>Jalālpuris</i> and <i>Daryabādis</i>				

6. 8. 1620	<i>Amertees</i>	Lakhwar			Rupees 1 to 6 per piece	Ibid., 197.
"	<i>Tasser and</i>	Baikunthpura			Rupees 400 and Rupees	Ibid.
	<i>'Aljāhs</i>	and Bengal		<i>'Aljāhs</i> 16 corge	10-16 per corge for the	
6. 10. 1620	<i>Amertees</i>	Patna	—	—	Worth Rupees 2,000	<i>E.F.</i> , 1618-21, 200.
"	"	"	—	—	Worth Rupees 75,000	Ibid., 200.
3. 8. 1621	Jahāngīrīs & Jāfarkhānīs	Patna	—	—	Worth Rupees 95,000	Ibid., 258.
20. 11. 1621	Semianos	Samana	—	—	Worth Rupees 55,000	Ibid., 337.
3. 1. 1622	"	"	—	—	Worth Rupees 5,000	<i>E.F.</i> , 1622-23, 9.
— — 1625	"	"	1,000 chakree	For these and other	goods paid 12,64,	<i>E.F.</i> , 1624-29, 93.
	<i>Amertees</i>	Patna	Worth 10,1000 mahmudis	389 mahmudis		
	Carpets	Lahore	Worth Rupees 30			
4. 4. 1626	Calicoes	Samana	—	—	—	Ibid., p. 127.
28. 11. 1626	"	"	—	—	Worth Rupees 900	Ibid., 149.
29. 11. 1626	"	"	—	—	For part of Rupees 35,832	Ibid., 153.
18. 11. 1626	Semianos	"	—	—	Worth Rupees 4,000	Ibid., 149.
28. 12. 1626	Linen	"	One parcel		—	Ibid., 168.
29. 9. 1636	Calicoes	Agra	—	—	—	<i>E.F.</i> , 1634-36, 298.
"	Semianos	"	—	—	—	Ibid.
Nov., 1639	<i>Daryabādīs</i>	"	20,000 pieces		Rupees 1½ per piece	<i>E.F.</i> , 1637-41, 192.
"	<i>Mercools</i>	"	7,000 pieces		Rupees 1½ per piece	Ibid.
28. 1. 1640	<i>Daryabādīs</i>	"	6,000 pieces		—	Ibid., 232.
"	<i>Mercools</i>	"	5,580 pieces		—	Ibid., 278.

<i>Date</i>	<i>Variety</i>	<i>Procured from</i>	<i>Volume</i>	<i>Prices</i>	<i>Reference</i>
29. 12. 1640	Mercools	Agra	60 bales	—	Ibid.
—	Mercools, Cannikeens Ardeas, Akbaris and Gazis	"	—	—	Ibid.
29. 12. 1640	Mercools	"	99 bales	—	E.F., 1637-41, 278.
24. 11. 1641	Mercools	Lucknow	20,000 pieces	—	Ibid.
	Daryabādis	—	20,000 pieces	—	Ibid., 312.
	Daryabādis		—	—	E.F., 1642-45, 6-7.
	Khairabādis		12 bales	—	Ibid.
	Mercools	—	52 bales	—	Ibid.
	Akbaris	—	'a great many'	—	Ibid.
	Calico Gazi	Agra	—	—	Ibid.
27. 1. 1643	Mercools	"	117 bales	—	Ibid., 137.
	Calico, Gazis and Agra Akbaris	Agra	10,000 pieces	—	Ibid.
	Daryabādis	"	100 bales	—	Ibid.
	—	"	10,000 pieces	—	Ibid.
30. 3. 1646	Bafta (as sample) Machhiwara Calicoes	Agra	—	—	Ibid., 204.
6. 1. 1648	Daryabādis	Via Agra	'a consignment'	—	E.F., 1646-51, 53.
	Gazi	Gokul, Hinduan, Lucknow	20,000 pieces	—	Ibid., 88.
26. 1. 1650	Chintz	Agra	—	—	Ibid.
	Akbaris	Via Agra	'unusual quantity'	—	Ibid., 277.
15. 2. 1650	Gazi and others	Lucknow	—	—	Ibid.
			—	—	Ibid., 299.

4. 1. 1651	<i>Mercools</i>	Nawgaon	—	Rupees 28 to 29 per corge	<i>E.F.</i> , 1651-54, 9.
8. 3. 1651	<i>Daryabādis</i>	Lucknow	—	—	<i>Ibid.</i> , 52.
"	—	"	150 bales	—	<i>Ibid.</i>
2. 3. 1652	—	"	'an Agra caravan'	—	<i>Ibid.</i> , 114.
15. 8. 1656	<i>Daryabādis</i>	Lucknow	3,000 pieces	—	<i>E.F.</i> , 1655-60, 70.
— — 1667	<i>Daryabādis</i>	"	16,000 pieces	Worth Rupees 30,000	<i>E.F.</i> , 1665-70, 263.
	<i>Mercools</i>	"	8,000 pieces		

There are, however, several gaps in the list. While short intervals of one to three years are quite frequent, two long-term ones occur from 1627 to 1635 and 1657 to 1666. Shorter intervals could be caused by a variety of factors acting singly or in combination with some others. For example, the inability to procure goods in time,²⁴⁶ the want of conveyances,²⁴⁷ early setting in or excess of rains,²⁴⁸ or delay in transit.²⁴⁹ Thus the missing years of 1623, 1637, 1642, 1644, 1645, 1647, 1649, 1652, 1653, 1654 and 1655 could have fallen victim to any of the aforesaid contingencies without in any way jeopardising the usual routine arrangement.

The longer intervals could, however, not be explained by reference to such equally accidental factors and we must look further for reasons. Several factors had combined in discouraging the export of cotton goods from Agra in the first instance. In 1627 emperor Jahangir had died and the ensuing conflict for succession, though brief, had rendered the highways more risky and means of transport were not available for the carriage of goods.²⁵⁰ The price of indigo was reported from Agra, in 1627, to have gone up,²⁵¹ presumably on account of the large quantities in demand by both the Dutch²⁵² and the English at this time.²⁵³ In fact, the English factors at Agra at this juncture had been told not to make investments in piece-goods;²⁵⁴ they were more interested in other commodities, such as indigo and saltpetre.²⁵⁵ The Dutch, on the other hand, after the failure of the Gujarat supplies, had been lured into opening a factory at Agra in 1634, as they were assured of cheaper prices, good quality, large quantity and reasonable dimensions of the north Indian calicoes.²⁵⁶ Similarly, other traders were also actively engaged in sending goods to Burhanpur and Ahmadabad out of its (north Indian) abundant supplies.²⁵⁷ Even the *Nawāb* of Hugli

²⁴⁶ *E.F.* 1642-45, 85.

²⁴⁷ *E.F.* 1651-54, 114; *E.F.* 1646-50, 13; *E.F.* 1618-21, 340.

²⁴⁸ *E.F.* 1818-21, 258, 268. ²⁴⁹ *E.F.*, *N.S.* I, 1670-77, 265.

²⁵⁰ *E.F.* 1624-29, 177, 234-5. ²⁵¹ *E.F.* 1624-29, 173.

²⁵² *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 15; *E.F.* 1634-36, 11, 12.

²⁵³ *E.F.* 1634-36, 1, 11, 12 and 138. ²⁵⁴ *E.F.* 1630-33, 8.

²⁵⁵ *E.F.* 1624-29, Introduction, xxxv, xxxvi.

²⁵⁶ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 2-3.

²⁵⁷ *E.F.* 1624-29, 234.

is reported to have furnished some cotton goods amongst other cargoes²⁵⁸ for export, but the origin of these goods is not indicated.

The disfavour into which north Indian goods had fallen was merely a temporary phase and the traffic was resumed by the English from 1636 onwards. Though within the next twenty years there are no long durations of inactivity, intervals of two or more years between the despatch of consignments are more frequent. Nor are the quantities supplied during the active years so high as to reflect any attempt at making good the losses occasioned by the earlier interruptions. After 1656, the situation further deteriorated in this respect and the next recorded consignment consisting of 24,000 pieces occurs only after full nine years, that is, in 1667. True, an Indian factor was sent up to Lucknow and Agra in order to make some purchases for the English Company's markets in 1664, but the agents were not at all sure if their rather fine quality would meet their approval.²⁵⁹

The chief obstruction during the early part of this period was the transit difficulty. Notwithstanding frequent orders to the contrary²⁶⁰ and even redress and restitution of the complaints by the king,²⁶¹ the *rāhdāris* and *zakāt* (transit dues) continued to be levied by the insubordinate jagirdars,²⁶² sometimes to the extent of fifty per cent.²⁶³ Besides, the dangers from highway robbers had also increased and sometimes these acted in collusion with the unruly chiefs.²⁶⁴ If this was the state of the English traders who enjoyed a sort of state protection, then the relative position of the native merchants was much worse.²⁶⁵ The contest for the throne in 1658 further aggravated the situation. Moreover, the English factors refer to some kind of estrangement between the Emperor and Prince Muazzam in 1670,²⁶⁶ as a result of which the existing relative security on the roads dis-

²⁵⁸ *Dutch Records*, 1638-39, Vol. XI, p. cccxl, 14.

²⁵⁹ *E.F.* 1665-67, 2. ²⁶⁰ *E.F.* 1651-54, 38, 84, 260.

²⁶¹ *E.F.* 1651-54, 38; for attending to their complaints by Sa'adullah Khan, the Minister, see *Ibid.*, p. 50.

²⁶² *E.F.* 1651-54, 114; *E.F.* 1665-67, 2.

²⁶³ *E.F.* 1665-67, 2. ²⁶⁴ *E.F.* 1651-54, 26, 114.

²⁶⁵ *E.F.* 1670-77, N.S., Vol. I, 203-4; *E.F.* 1651-54, 114; *E.F.* 1618-21, 269-70.

²⁶⁶ *E.F.* 1670-77, N.S., Vol. I, 203-4.

appeared. Besides, the rise of Shivaji in the Deccan provided an additional opportunity for intercepting caravans before they could reach Surat.²⁶⁷

It seems that from 1670-77 both Bombay and Surat had stopped placing orders in the north. In fact, it was not easy for the Company's agents to provide the goods even from the neighbouring regions of Gujarat and so on, again because of the Marhatta depredations. Nevertheless, in the cargo of two ships of the Company cotton goods figured as one of the items, but the Upper Indian share, if any, is not revealed.²⁶⁸ Communications between their Bengal headquarters and other factories in the interior were uncertain, due to the exactions and harassments of the local Mughal governors in the eastern parts,²⁶⁹ while their project of applying to the Emperor through a wakil for the redress of their grievances could not be implemented as the expenses it entailed lay beyond their meagre means.²⁷⁰ In addition, the conflict with the Dutch at this stage further baulked their progress.²⁷¹ Thus their trading operations were greatly hampered by the Dutch war, difficulties with the Mughal authorities and shortage of funds. In the meantime, however, a change in the kind of goods required by them also took place, which further discouraged the Upper Indian goods. During the years 1665-1680, the Company changed its commercial policy. It turned from the raw materials and coarse textiles to the worked-up finer commodities, "with special reference" to silks and calicoes.²⁷²

The Upper Indian goods had been hitherto used by the English not so much for the European markets but either for the Central Asian markets, or more largely, for the spice islands as a "recognised medium of the trade."²⁷³ But after the stabilisation of their factories at Patna and in Bengal, along with the said change in their policy, the coarser varieties from a more distant region were no longer an indispensable necessity for them. Indeed, according to the English Factories, the Company, even at Patna, appears to have been much more interested in saltpetre than in the cotton goods.²⁷⁴ Gradually, the centre for

²⁶⁷ Ibid., 192.

²⁶⁸ Ibid., Vol. II, 56, 143, 236 and 254.

²⁶⁹ Ibid., 334-5.

²⁷⁰ Ibid., 363.

²⁷¹ Op. cit., 357.

²⁷² Glamann, pp. 41, 42.

²⁷³ Moreland, *India at the Death of Akbar*, 225.

²⁷⁴ E.F. 1670-77, N.S., Vol. II, 373, 387, 392, 415, 423.

the supply of the goods was shifting to Bengal, and by about the end of the century Upper Indian goods ceased to occur as separate identities²⁷⁵ though it is more than likely that some of them continued to occupy a share in the outgoing textile cargoes of Bengal.²⁷⁶

As regards the volume, minimum English exports from our region according to the above Table during the period 1618-1677 amount to 2,17,266 pieces, plus cloth worth Rupees 3,36,950/-, and part of Rupces 35,832, in addition to 617 bales, 1,000 "chakree", sixteen corgs, eleven packs, an "unusual quantity" and "a great many", one parcel, one consignment, twenty three fardles (or ninety two maunds as each fardle of the smaller size is equal to four maunds²⁷⁷). As the unit used in representing the volume is variable, it is not possible to arrive at an exact annual average of the minimum exports during the said fifty years. Nevertheless, a rough average would be about 4,345.3 pieces and cloth worth Rupces 4,739 and a little more, over twelve bales, twenty chakree, .32 corg, .2 parcel, .2 consignment, 1.84 maunds, and .22 packs per year. No doubt, by deducting the inactive years we shall certainly have at least 1/3 higher average of the minimum annual exports by the English factors. But in view of the medieval conditions in general and transport difficulties in particular, something or other was bound to crop up in the course of half a century to interrupt the usual flow of traffic. Therefore, the above average, though perhaps more conservative, appears more sober.

We may obtain a better view of the situation by converting the various above units into yards, though it may not be equally accurate. The usual length of a piece is said to have been between twelve to fifteen yards²⁷⁸ or say, fourteen yards for the sake of convenience. Thus with twenty five pieces to each bale and twenty to each corg we shall have 2,20,410 yards for 617 bales and sixteen corgs, while the 2,17,266 pieces would yield 30,41,744 yards. By assigning six *dāms* per yard as the average price paid by the factors for their goods, the sum of Rupees 3,36,950 would yield about 2,246,340 yards. While the rest of

²⁷⁵ Glamann, 143-44. ²⁷⁶ Ibid., 144.

²⁷⁷ E.F. 1618-21, 60, n. by Foster; E.F. 1634-36, p. 1.

²⁷⁸ Glamann, 138.

the units may be put roughly at 2,00,000 yards for the sake of convenience. Thus the aggregate yardage comes to 5,708,494 for fifty years or 1,14,161 annual²⁷⁹ or 1,20,000 yards per year.

The *Hague Transcripts* state that from 1617 to 1634 the Dutch had exported goods from the up country worth 2,80,000 florins or Rupees 2,24,000.²⁸⁰ The English Company's exports for the corresponding years amount to twenty three fardles, twenty six bales, sixteen corges, one parcel, eleven packs, 1000 chakrees, 8,686 pieces, goods worth Rupees 2,36,950/- in addition to worth part of Rupees 35,832/- as is shown in the Table. If we assume that the total cost of all the first seven items amounts to Rupees 5,000 and assign one-third of Rupees 35,832 to piece-goods, then our sum would be Rupees 2,36,950 and Rupees 50,000 and Rupees 11,944 equalling Rupees 2,98,894 or approximately Rupees 3,00,000. Thus the total minimum exports of the Dutch and the English together yield an aggregate of Rupees 5,24,000 worth in the course of seventeen years or an average of Rupees 1,74,633.3 annually. By converting this into yards at the same medium price of six *dāms* per yard we get 11,64,220 yards as their average annual export for the period. If we assume that the size of the combined export by sundry other traders was double this one, then the total annual export figure from 1617-1638 mounts up to 2,328,440 yards. It is, indeed, a small fraction of 4.5% when compared with Moreland's estimate of 50 million square yards as the total volume of annual Indian export by sea as mentioned earlier.

In many cases it is extremely difficult to trace the origin of goods that were being exported. For one thing, the points of export lay outside our region. It was normal for goods originating from various places in Northern India to be assembled at *entrepôts* and to get mixed up together before they were forwarded to the ports. Passing through the hands of middlemen, many of them, foreigners, the goods were bound to lose their identity. Even names were no guide to the place of origin. *Daryābadis*, *Khairabadis*, *Akbaris*, *Jalalpuris* occurred up to

²⁷⁹ According to Moreland's calculation the total annual export of cotton goods from India by sea in the 17th century was about 50 million square yards, see *Indian Journal of Economics*, V, Part III, 1921, p. 245.

²⁸⁰ *Dutch Records*, 1629-34, Vol. IX, p. cccxviii, 1.

Gujarat where they were subjected to further treatment so that by the time they reached the coastal areas they became merged with the rest.²⁸¹ Only semiano retained its identity till the end.²⁸² For the rest, all goods became indistinguishably inter-mixed. Thus all the North Indian calicoes came to be known by the generic term *chowlār*.²⁸³

In the 17th century most of the known parts of the tropical world were covered by traders of almost all the nationalities lying west of India, the Portuguese, the Dutch and the English being the most active ones in the traffic of Indian cotton goods.²⁸⁴ For our present purpose, however, Pyard's statement has very little value as neither he nor other travellers touching upon the subject distinguish the North Indian calicoes from the rest. Nor were they in a position to do so for the reasons given above. Under the circumstances we may again revert to our main source, the English Factory Records.

The English factors carried most of their North Indian goods to Persia,²⁸⁵ Mukha,²⁸⁶ Basra,²⁸⁷ Bantam,²⁸⁸ and some to England.²⁸⁹ The goods were usually despatched from the Surat port.²⁹⁰ Therefore, it was quite convenient for the factors to buy *guzees* of all kinds from Agra and elsewhere and get them further treated or dyed in Gujarat,²⁹¹ as these treated ones perhaps commanded a readier sale in markets mentioned above. Frequently, they carried goods to Achin as well and the Agra *guzees* was the most acceptable cloth there.²⁹² The Dutch too covered more or less the same regions, though concurrently with the Portuguese²⁹³ they concentrated more towards the eastern islands.²⁹⁴ Besides, the volume of their import at Amsterdam was definitely higher than that of the English at London.²⁹⁵

²⁸¹ Moreland, *J. J. E.*, Vol. V, Part III, 1921, p. 232.

²⁸² *Ibid.*, p. 231.

²⁸³ *Ibid.*, p. 232.

²⁸⁴ Pyard had said "everyone from the Cape of Good Hope to China, man and woman, clothed from head to foot" in the products of Indian loom, quoted by Moreland, *India at the Death of Akbar*, p. 179.

²⁸⁵ *E.F.* 1618-21, 84, 162; *E.F.* 1642-45, 5, 7, 137.

²⁸⁶ *E.F.* 1642-45, 5, 6, 7, 137. ²⁸⁷ *E.F.* 1642-45, 5, 7, 204.

²⁸⁸ *E.F.* 1618-21, 93; *E.F.* 1642-45, 5, 6, 137 and 204.

²⁸⁹ *E.F.* 1618-21, 61. ²⁹⁰ *E.F.* *passim*.

²⁹¹ *E.F.* 1642-45, 5, 6, 7, 137.

²⁹² *E.F.* 1642-45, 164. ²⁹³ *E.F.* 1618-21, 214.

²⁹⁴ Glamann, 138. ²⁹⁵ *Ibid.*, 144.

though the share of Upper Indian goods in these consignments is obscure. The Dutch and the Portuguese operated mostly from the Bengal port of Hugli. In fact, the Portuguese covered up to Malacca and Cochin by means of their yearly shipping to and from Hugli.²⁹⁶ Tavernier attests to the *bastahs* reaching up to Africa.²⁹⁷

No doubt, the flow of Hindustani goods beyond the seas must have continued even after c. 1675, though maybe in smaller quantities, but our sources do not mention them. The next time we hear about them—or more particularly about the Patna exports—is after a lapse of about a hundred years, since 1765, subsequent to the acquisition of the *Diwāni* of Bengal, Bihar and Orissa by the English and this part has already been touched upon under the Patna Trade.

²⁹⁶ *E.F.* 1618-21, 214.

²⁹⁷ Tavernier, II, 5-6.

CHAPTER VI

SOME OTHER INDUSTRIES

IRON

THE sources reveal that during the Mughal era several iron mines were being worked in the Hindustan region. These were located at Kalinjir,¹ Gwalior,² Kumaon,³ Suket Mandi (in the subah of Lahore⁴), Beenmahl and other districts in the Ajmer subah.⁵

The earliest account of the mode of processing iron is found in *'Ibratnāmah* which was compiled in c. 1826. The author narrates that the Suket Mandi mine had an abundant deposit of a superior variety of iron ore. The blocks of ore extracted by the employees of blacksmiths were mixed with earth. Therefore, in order to separate the two, blocks were first placed in a furnace which had live coals both above and below it. Twenty men worked the bellows so that the fire was stirred into flames. Thus softened, the block of the ore was then beaten to powder with a mallet. The operation rendered the iron content solid, like stone, so that the earth remains could be discarded. The ore was taken out of the furnace and again subjected to intense heat at the blacksmith's workshop. From there it was brought back in small quantities, put on the anvil and beaten hard. Thousands of maunds of iron, concludes our author, were manufactured in this way.⁶ Perhaps the same method was adopted in processing other iron ores mentioned above.

During the Mughal days iron wares constituted an indispensable part of human needs. The cheapness of the metal as well as its intrinsic properties, as its sharpness, hardness and heaviness, rendered it very popular, which is reflected, for example, in the existence of ironmongers within the precinct of each village habitation. The parganahs⁷ and towns⁸ naturally would

¹ A.A. II, 170; *Hadiqat*, 669. ² A.A. II, 192. ³ Ibid., 285.

⁴ Ibid., 321. ⁵ Manucci, II, 432; Todd, 477.

⁶ *'Ibratnāmah*, I, 46. ⁷ *Tazkira i Nudrat*, 90a.

⁸ Bayazid Bayat, *Tazkira i Humayun wa Akbar*, Calcutta, 1941, pp. 102, 374; Ahmad Yādgār, *Tarikh i Shahi*, Calcutta, 55.

have their own blacksmiths as may be inferred from allusions to them in our authorities. Indeed, two or three marts of blacksmiths are mentioned at Agra,⁹ and a lane there—*Loha Galy*—also came to be known after them.¹⁰ Similarly, it is possible that in other cities most of them were concentrated within a ward or in streets. The demand for their wares led ironmongers “to set up their small furnaces where ore and fuel were available.”¹¹ But Moreland’s further inference that “they abandoned them, when either of them failed¹²” is not borne out by facts. No such desertion of their workshops is mentioned by any of our authorities. Though Abul Fazl does not mention it, in 1793 the blacksmiths in the camp of De Boigne, a colonel in Sindhia’s army, were being paid Rupees six per month.¹³ Naturally, the blacksmiths when engaged by the civilians would receive a lower wage.

Agricultural implements required by the bulk of the population were either wholly or partly made of iron. Iron tools had to be furnished also to those following non-agricultural professions, to blacksmiths, carpenters, masons, artisans, sculptors, tailors, shopkeepers, confectioners, sugar makers, oil pressers, dyers, washermen, butchers, gardeners, barbers, cobblers and so on, in order to enable them to ply their respective trades. The use of iron nails, hooks, bars, screws, rings and fences¹⁴ was also required for the building industry. The domestic kitchen too had to be equipped with ironware.¹⁵ *‘Ibratnāmah*, for one, mentions the making of large cooking vessels of iron.¹⁶

A substantial quantity of iron was required for the manufacture of armour and weapons. Apart from the equipment of the armies and retainers, personal weapons for both offensive and defensive purposes were needed and used even by the common man as there was no restriction on bearing arms. That the common man did avail himself of the freedom may be gathered from, among other sources, Abul Fazl’s price list in the *Ā’in i Akbari*. Out of seventy seven kinds of weapons that he has enumerated, fifty eight were placed at or below Rupee one. The

⁹ *Delhi Akhbārāt*, 1761-88, p. 185. ¹⁰ See Chapter II.

¹¹ Moreland, *India at the Death of Akbar*, p. 148.

¹² *Ibid.* ¹³ *Sindhia and Northern India, 1785-94*, p. 393.

¹⁴ *‘Ibratnāmah*, I, 46. ¹⁵ *Dastur*, 62a. ¹⁶ *‘Ibratnāmah*, I, 46.

price of seventeen varied from Rupees one and a half to Rupees five. Taken as a whole, the prices ranged from a minimum of one, one and a half and two *dāms* to a maximum of Rupees three hundred or one hundred *mohurs*¹⁷ per picce. The majority of the weapons being so cheap (at or below Rupee one) is significant. They could only have supplied the needs of the humbler folks. The cheapness also reflects a large demand and perhaps the large manufacture of these weapons.

Besides these there were armour, matchlocks, guns and cannon balls, made generally of iron, though sometimes guns and cannons were made either partly or wholly of brass or copper. The cannon balls were heavy weighing some seers and even maunds. Indeed, some of them weighed twenty three seers,¹⁸ or one maund¹⁹ or even twelve maunds.²⁰ According to *Dastur-ul'amal* guns were of twelve kinds²¹ though Abul Fazl describes only five.²² Emperor Akbar had introduced several improvements in the process of manufacturing and the methods of using guns.²³ His *Sadr*, Mir Fatchullah Shirāzi, is also credited with several useful innovations in this direction, for example, a wheel that could clean at a time twelve barrels,²⁴ or his innovation of a gun which could be taken to pieces on marches and then put together again when required.²⁵ Some idea of the use of cannons may be obtained by four thousand four hundred and fourteen pieces furnished by a relatively reduced army of Prince Bahadur Shah in 1707.²⁶ This also reflects an expansion and advance in the industry so greatly encouraged earlier by Emperor Akbar, which is corroborated by *Dasturul'amal's* evidence seen above. That the improvement continued till the very end of our period is further confirmed by a report of 1806, where the English are advised to cast their guns on oriental models as these were, besides being effective, much lighter in weight and, therefore, more convenient for transportation.²⁷

According to a modern writer a village, Kotali Loharan, in

¹⁷ A.A. I, 117-19. ¹⁸ *Delhi Akhbārāt*, 1761-88, p. 83.

¹⁹ Irvine, *Later Mughals*, I, 325. ²⁰ A.A. I, 119.

²¹ *Dastur*, 65a. ²² A.A. I, 119. ²³ *Ibid.*, 119-21.

²⁴ Yusuf Husain, *Glimpses of Medieval Indian Culture*, Asia Publishing House, p. 78.

²⁵ *Ibid.*, 79. ²⁶ Irvine, *op. cit.*, 25-6.

²⁷ *East India Military Calendar*, London, 1823, Vol. I, p. 63.

the Sialkot district, manufactured matchlocks which were highly esteemed and in great demand. Their barrels were especially superior in strength and beauty. Each unornamented piece of matchlock cost Rupees fifteen.²⁸ Todd mentions Mewar²⁹ and Bikaner as centres for the manufacture of matchlocks.³⁰ It is obvious from the *Ā'in i Akbari* that *Shāhi Kārkhānas* produced ordnance which, in excellence and effectiveness, was rated as second to that of Turkey alone.³¹ Presumably later, in the eighteenth century the provincial rulers had established their own manufacturing foundries in their own capitals as was the case with the Nawabs of Oudh.³² One of the principal manufactures of the Punjab is said to have been matchlocks during the Sikh regime and considering that each Sikh was armed with a spear, matchlock and scimitar³³ the number of these weapons required must have been considerable indeed. This implies that the production of relatively heavier armament had multiplied with the progress of time.

As regards other ordinary weapons it is evident that under the circumstances they must have been produced locally for the common consumer. Besides large towns and cities, it is possible that even the large-sized villages were producing the cheapest and perhaps the crudest varieties seen earlier. For example, Manucci related that a Rajput Rajah had equipped his army (one of its divisions being twenty thousand strong) with arms produced locally. He further comments that the region is rich in iron and is widely used for the manufacture of arms.³⁴ Similarly, in the Punjab the industry was scattered all over the province.³⁵ Indeed, one of the principal manufactures of the Punjab is said to have been swords and matchlocks.³⁶ However, some cities had established their reputation as centres of arms manufacture : Sialkot³⁷ and Gujarat were noted for their swords, lances and sabres.³⁸ Sirohi swords made on the Damascus model

²⁸ Gupta, III, p. 170 ; also see Watt, *Commercial etc.*, p. 692.

²⁹ Todd, 342. ³⁰ *Ibid.*, 504.

³¹ *A.A.* I, 119. ³² *Papers*, II, 331, 344.

³³ W. Franklin, quoted in the *Early European Accounts*, pp. 99, 103.

³⁴ Manucci, II, 432. ³⁵ Gupta, III, 170.

³⁶ Griffiths, *Early European Accounts*, p. 93.

³⁷ *Khulasat*, 95. ³⁸ *Ibid.*, 100.

were held in high esteem.³⁹ Incidentally, Terry, the English traveller, was quite disappointed with the tempering of the Indian sharp blades, for unlike the English swords they could not be bent without breaking. As a matter of fact, he offered this as the reason for the demand for English swords.⁴⁰ But this does not seem to have lasted long as *Majmu'atus-Sanā'i* describes the method for the making of swords on the model of European (*Firingi*) swords, which could be bent like paper without breaking.⁴¹

We may thus conclude that the volume of iron ore found in our region was adequate for the local requirements. The production of general ironware is marked by neither upward nor downward progress to judge from what our authorities tell us. But, when viewed in the light of increased population in the course of two and a half centuries, the output would certainly show an upward trend. The arms and ordnance industry registers a definite advance. The provision of equipment for imperial armies up to 1707, in addition to the supply of private requirements, was no mean achievement. But the disintegration of the Empire, the rise of the myriad of petty principalities, adventurers and freebooters, and the consequently greater urgency for private individuals to secure themselves against the ruling anarchy, all combined to greatly stimulate the industry. Not only did the production multiply manifold but improvements in the existing models were also effected. This is perhaps the only industry which flourished and thrived amidst the political chaos, particularly that of the eighteenth century.

COPPER

Copper mines of great antiquity were to be found in Upper India. In the Singbhum district of Bihar there was a copper-bearing belt extending to about eighteen miles in length and delineated by many ancient workings.⁴² However, we do not

³⁹ *Mirāt i Ahmadi*, I, 14; Todd, 342; Irvine, *Army of the Indian Mughals*, London, 1903, p. 76.

⁴⁰ Terry, Foster, 314.

⁴¹ *Majmu'atus Sanā'i*, by Mir Yahya, Ethe 2354, f. 17b.

⁴² Brown and Dey, *India's Mineral Wealth*, Oxford, 1955, p. 146; for expectation of their revival in recent years, see Watt, *Commercial etc.*, p. 401.

have any knowledge of copper working during the sixteenth to eighteenth century period. Copper occurred in Kumaon⁴³ and Bairat (in the Sarkar of Alwar), the latter being so profitable as to yield thirty-five seers of metal out of a one-maund ore.⁴⁴ Similarly, the deposits of Rajputana, located at Chainpur,⁴⁵ Singhana, Udaipur, Korputli⁴⁶ and Babai⁴⁷ were equally rich. The mines of Raipori and other villages near Narnol were productive enough to feed the local copper mint at Raipori.⁴⁸ Peter Mundi reported one at Kishangarh,⁴⁹ and Brown and Dey add some at Zari and Kalikui on the south-western limits of the said province.⁵⁰ Evidences regarding the copper mines in the subah of Lahore are generally vague, with the exception of the *Suket Mandi* mines⁵¹ which, being of poor quality, did not pay.⁵² Since Abul Fazl does not make a similar comment it is possible that this deterioration in its quality was a subsequent development. Some copper could be obtained in this province by washing the soil.⁵³ There were mines in the mountainous region⁵⁴ as well as in its other parts.⁵⁵

We have no information regarding the working of these mines, the processing of the ore, or the details of the method employed in converting copper sheets into articles of use. However, we learn from the *Ā'in i Akbari* that besides pure copper its alloys were compounded. Thus bronze was obtained by compounding four seers of copper with one seer of tin.⁵⁶ In brass the proportion of copper and *rūh-i-tūtiya* was 24 : 1, varying proportions yielding varieties of brass. In *ruy* the composition was four seers of copper and one and a half seers of lead and so on.⁵⁷ Except in the striking of coins, generally these alloys were used for the same purpose as the copper itself. Since tin, *tūtiyah* and lead were cheaper than copper, these compound alloys must have gained greater popularity.

Several articles were manufactured from this metal.⁵⁸ Copper

⁴³ A.A. II, 285. ⁴⁴ Ibid., 192. ⁴⁵ Ibid., 273. ⁴⁶ Ibid., 193.
⁴⁷ Ibid., 205; Brown and Dey, 151. ⁴⁸ A.A. II, 205; Manucci, 432.
⁴⁹ Mundy, II, 242. ⁵⁰ Brown and Dey, 151.
⁵¹ A.A. II, 321; *Ībratnāmah*, I, 47. ⁵² *Ībratnāmah*, I, 47.
⁵³ A.A. II, 317. ⁵⁴ *Khulāsat*, 110. ⁵⁵ *Hadiqat*, 151.
⁵⁶ A.A. I, 39. ⁵⁷ Ibid., 42.

⁵⁸ Ray, P. C., *History of Chemistry, Ancient and Medieval India*, Calcutta, 1956, p. 93.

vessels had been in use in India since ancient times, but their use seems to have been greatly extended since the advent of the Muslims, who had been ordinarily using it elsewhere in the Middle East.⁵⁹ The tinning of copper vessels, a necessary measure for preventing oxidization, is regarded by some authorities as having been introduced in India by these new immigrants.⁶⁰ Abul Fazl recounts the use of copper for making vessels⁶¹ and he also tells us that those of the imperial kitchen were tinned twice a month, while the broken ones were sent to the brazier's for replacement.⁶² B. Anand Ram in c. 1154 A.H., enumerates about fifty varieties of copper vessels,⁶³ whose actual number is regarded by Hoey (at Lucknow) as "legion⁶⁴". In brief, Muslims generally used copper vessels for their domestic purposes.⁶⁵ There were Muslim dealers, at all events in Lucknow, who let out cooking vessels for festal assemblies in *Moharram*, marriages or for alms giving.⁶⁶ According to Glamann vats for the distilling of *araq* and refining saltpetre were also made of this metal.⁶⁷

On the other hand, the Hindus used brass or bell metal vessels.⁶⁸ The metal itself being cheaper than copper, its cost of maintenance was further reduced as it did not require tinning. Hence a relatively larger section of the people could use these alloys. Brass is detestable (*Makrooh*) to the Muslims.⁶⁹

As regards the manufacture of these vessels, by virtue of their universal use, it appears that all towns and cities produced them in order to meet the local requirement. There are, however, some noteworthy names as principal centres for their production. Benaras manufactured both copper and brass wares but more especially the latter,⁷⁰ while Lucknow⁷¹ and Delhi were famous for their copper wares.⁷²

⁵⁹ T. Banister and G. Duckett, *Hakluyts Voyages*, London, 1927, Vol. II, p. 131; Khuda Bakhsh, *History of the Islamic Peoples*, Calcutta, 1914, p. 482.

⁶⁰ Ray, op. cit., 216. ⁶¹ A.A. I, 42.

⁶² Ibid., 61. ⁶³ *Dastur*, 62a. ⁶⁴ Hoey, *Trade*, 199.

⁶⁵ For stray references see, A.A. II, 192; Badaoni, III, 161; S. Mutākherin, I, p. 265. ⁶⁶ Hoey, op. cit., 101.

⁶⁷ Glamann, 168. For uses of copper vessels in other industries such as dyeing see Chapter IV.

⁶⁸ T. Mukherji, p. 186; Watt, op. cit., 402.

⁶⁹ Watt, op. cit., 402. ⁷⁰ Pelsaert, 7. ⁷¹ Hoey, op. cit., 198-200.

⁷² *Punjab District Gazetteer*, Vol. V. A. 1912, pp. 146-47.

It is, indeed, strange that W. H. Moreland, who himself translated and edited Pelsaert's original text, should have overlooked his and Abul Fazl's evidence and categorically stated that he found no mention of the use of copper or brass utensils except in Goa, where Linschoten tells us that he had found copper cans commonly employed for drinking purposes.⁷³ Incidentally, even this remark of the traveller disposes of W. H. Moreland's inference that copper was far too expensive for the common man (at any rate at Goa, where the prices could not have been very much lower than in Upper India). According to Abul Fazl copper was selling at one thousand and forty four *dāms* per maund, twenty six *dāms*, two and a half jeetal per seer⁷⁴ or 1 and 139/261 seers for a rupee. The price was relatively higher when compared with other current prices. Nevertheless, people earning more than Rupees fifteen or twenty a month, such as a trooper whose monthly income was Rupces twenty five,⁷⁵ could easily afford copper utensils. Two other factors further intensified the urge to possess them. Since copper was an investment which could always be capitalised, humbler folk for whom precious metals were a distant dream could concentrate on this base metal. Secondly, since utensils were then regarded as the most important item among the household effects,⁷⁶ the effort to collect them to a maximum would be natural.

Occasionally, copper plates were employed as material for décor in splendid edifices.⁷⁷ For instance, a palace in Gwalior had plates of this metal in its fine domes,⁷⁸ the eastern front of the Agra fort was covered on top with plates of copper gilt.⁷⁹ Likewise all the cupolas of the suite of Rangmahal at Delhi were formerly covered with copper.⁸⁰ Some quantity of this metal was also used as a means of personal decoration.⁸¹ Obviously, copper jewellery must have been confined to the poor people. Copper and its alloys were, again, used for casting idols of all shapes and sizes by the Hindus.⁸²

⁷³ Moreland, *India at the Death of Akbar*, p. 273.

⁷⁴ A.A. I, 39. ⁷⁵ Bernier, I, 216-17. ⁷⁶ Watt, op. cit., 404.

⁷⁷ Glamann, 168. ⁷⁸ *Bābarnamah*, II, 337. ⁷⁹ Hodges, 118-19.

⁸⁰ Keene, *A Handbook for Visitors, Delhi and its Neighbourhood*, Calcutta, 1899, p. 12.

⁸¹ A.A. I, 42; R. Fitch, Ryley, 109.

⁸² Glamann, 168; Nafis Ahmad, 92; Ray, op. cit., 91.

But a much more substantial quantity of this metal as well as of its alloys was used for making guns and cannons.⁸³ Perhaps its relative lightness rendered its ordnance preferable to heavy iron cannon especially when transportation was in question. In addition to their relative lightness, copper and its alloys were durable and free from corrosion by rust. These factors might have stimulated their use for guns and cannons. Thus throughout our period we come across them made either of copper⁸⁴ or its alloys⁸⁵ when not of iron. It may be noted here that some of them are pointed out to have been "small field pieces"⁸⁶ According to *Mirat i Aftāb numa* Aurangzeb used the copper bricks of Akbar in the Agra fort for making seven large guns.⁸⁷ In certain instances copper (or its alloys) are used along with iron in the same piece.⁸⁸ Names of some expert gun-makers of Agra have come down to us, such as of Ustad Quli Khan,⁸⁹ Kabir and Husain,⁹⁰ or that of Mathura Das working under the direction of M'otamid Khan.⁹¹

But by far the most important and stable function of this metal was coinage. Copper coins under various names had been current in our region long before our times, as may be gathered from, amongst other sources, the numismatic catalogues of the extant coins.⁹² But their importance grows rapidly from the beginning of our period. The revenue assessment payable in cash as introduced by Emperor Akbar⁹³ had led to a greater monetisation of the economy and copper coins in conjunction with the silver rupee were the medium for effecting the process. In fact, the frequency of use of the copper *dām* (one-fortieth part of a rupee) and its fractions was far greater than that of silver rupee or gold *mohur*.⁹⁴ Thus, though officially there were

⁸³ Glamann, 168.

⁸⁴ Roe, I, 89; Ray, op. cit., 209; T. Mukharji, 186.

⁸⁵ Bernier, I, 217, 218; Manrique, II, 160; *Sindhia and Northern India* (1785-94), ed. by J. N. Sarkar, Bombay, 1954, Vol. I, 392; *Delhi Akhbārāt, 1761-88*, p. 70; W. Irvine, *The Army of the Indian Mughals*, p. 125.

⁸⁶ Bernier, I, 218. ⁸⁷ *Aftābnuma*, 267a-b. ⁸⁸ Bernier, I, 260.

⁸⁹ *Bābarnamah*, II, 262-63. ⁹⁰ *A.A.* I, 113. ⁹¹ *Aftāb numa*, 267b.

⁹² N. Wright, *The Coinage and Metrology of the Sultans of Delhi*, Delhi, 1936, pp. 10-11, 14-15, 31-37, 43, 57-58, 60-63, 65-66, 85-86, 87-88, 102, 104, 115, etc.

⁹³ *A.A.* II, 68. ⁹⁴ Pelsaert, 29.

three coins, gold, silver and copper, in which the mercantile affairs of the country were transacted,⁹⁵ the bulk of them was conducted in *dāms*. Even the revenue accounts were made up in *dāms*.⁹⁶ The greater demand for the copper coins is also reflected in the forty four copper mints as against fourteen for gold and silver combined.⁹⁷ Though Abul Fazl tells us that the exact weight of each *dām* was one *tola*, seven *māsha* and eight *surkhs*, and that one maund yielded one thousand, one hundred and seventy *dāms* (or thirty in a *scer*);⁹⁸ it is indeed a pity that he does not, likewise, mention the number of *dāms* issued at any mint or in any year. Such information would have enabled us to establish the volume of copper thus required.

Later, in the seventeenth century, some of the local mines having failed, the price of copper rose sharply,⁹⁹—a situation that was aggravated by the inadequate imports of the article.¹⁰⁰ The import position, however, improved in the course of the next century when large quantities were brought in by the East India Companies of the Dutch¹⁰¹ and the English from Japan.¹⁰² Thus during the middle of the eighteenth century when an extreme scarcity of silver is reported from Patna,¹⁰³ the copper position seems to have remained satisfactory. In the price list of Benaras fixed in 1781, four varieties of copper are noted,¹⁰⁴ whose prices were Rupees fifty-five, fifty-nine, sixty and sixty-five a maund respectively.¹⁰⁵

SALT

Salt occurred mainly at two places in northern India, at Sambhar in the subah of Ajmer¹⁰⁶ and Shamsabad in the subah

⁹⁵ *A.A.* I, 32. ⁹⁶ See *A.A.* II, pp. 129 onwards.

⁹⁷ *A.A.* I, 31-2. ⁹⁸ *Ibid.*, 38.

⁹⁹ Moreland in Felsaert on p. 29, n.n. 2.

¹⁰⁰ Moreland, *From Akbar to Aurangzeb*, p. 184.

¹⁰¹ Glamann, See Chapter IX.

¹⁰² Bolts, 70. ¹⁰³ See Chapter III.

¹⁰⁴ Except Chandausi copper, the second variety, the rest are difficult to make out. These are spelt as 1st GOLUA KOLUNDAZEE, 3rd MAS (copper) KATHE ENGREZI (English) and 4th as MAS KODALIAH, *Papers*, I, 304.

¹⁰⁵ *Papers*, I, 304.

¹⁰⁶ Badaoni, II, 46; Manucci, II, 425; *Dastur*, 62b; Watt, *Commercial* etc. p. 965.

of Lahore.¹⁰⁷ While at the former the salt was obtained by evaporating the water of the lakes, a relatively simple process, the latter was the rock variety requiring more or less the skilled labour of the miners to extract it.

"It is believed that the Sambhar lake has been worked for salt for fourteen hundred years.¹⁰⁸" This Sambhar salt was considered excellent variety and that of Panchbhadra Lake that lay beyond Looni was the most esteemed.¹⁰⁹ Several lakes, all grouped together under the same name, extended to four *kos* in length and two *kos* in width¹¹⁰ though Brown and Dey put it at ninety square miles at its highest level, dwindling to a small central puddle by March or April.¹¹¹ The earliest description of the process is to be found in the *Khulāsāt ut Tawārikh*. The lake area was interrupted by pieces of cultivable land. Its soil was loosened with spades and covered with the water of the lake, presumably with the aid of oxen. Within the next fortnight or so the water would evaporate, leaving all the land covered with salt. The salt was then again dug with spades, stored on the bank and then sprinkled with some water in order to separate it from the earth.¹¹² Todd, however, tells us that the process of natural evaporation was expedited by means of *sirkindah* grass, which lessens the superficial agitation. After collecting the salt into immense masses a variety of an alkaline plant was burnt at its summit to render it impervious to the weather.¹¹³ This salt was red, white or blue.¹¹⁴ We learn that in c. 1900 "the salt industry of Rajputana produces about two hundred thousand tons a year and meets the requirements of fifty nine million people¹¹⁵."

The salt range near Shamsabad mountain extends to about twenty *kos*¹¹⁶ in length—fifty *karohs* in length and four *karohs* in width, interspersed with cultivable land according to Ghulam Mohammad Khan¹¹⁷ and *Hadiqat ul Aqālīm*.¹¹⁸ It has enormous deposits of rock salt, perhaps the most massive in the world, and is worked at several points.¹¹⁹ Khairuddin Lahori notices their

¹⁰⁷ A.A. II, 319; *Khulāsāt*, 101; Watt, op. cit., 964.

¹⁰⁸ Watt, op. cit., 966. ¹⁰⁹ Todd, 484. ¹¹⁰ *Khulāsāt*, 59.

¹¹¹ Brown and Dey, 506; Spate, 571. ¹¹² *Khulāsāt*, 59.

¹¹³ Todd, 484. ¹¹⁴ *Khulāsāt*, 59. ¹¹⁵ Watt, op. cit., 966.

¹¹⁶ A.A. II, 319. ¹¹⁷ G. Md. Khan, 29a. ¹¹⁸ *Hadiqat*, 149.

¹¹⁹ Spate, 450.

names. Two places were at Khawah, lying below the fort of Makhaliyah, and another at a distance of six *karohs* from Makhaliya below Kushk Chan Taraan. Next was Mukhraj, adjoining Ahmadabad, and the last was called Siahwal.¹²⁰ Burns and Spate regard Khewrah, situated five miles north of Pind Dadan Khan, as one of the principal deposits,¹²¹ the other notable one being at Kalabagh at the southern end of the Indus Gorge.¹²²

By piecing together the relevant evidence we get some idea of the method of the working of these mines. At the foot of the hill an aperture was dug which was reached with a flight of stairs to the depth of twelve yards below.¹²³ *Hadiqat ul Aqālīm* makes the depth to be three hundred yards.¹²⁴ The steps measured two to three yards in width, so that two or three labourers might be able to move up and down abreast. Further, in order to prevent the roof of the mine from falling in, pillars were erected at intervals of about three yards. The miners, using matlocks (*zaghnole* in the original), extracted blocks of salt weighing from one to three maunds each.¹²⁵ According to *Khulāsāt ut Tawārīkh* and *Hadiqat ul Aqālīm*, each of the miners also carried a torch in his hand and emerged from the mine loaded with a thick block of salt on his shoulder.¹²⁶ Khairuddin Lahori, however, states that they used to tie the slabs of salt with ropes, lift it like a cot (without the legs) and carry it out.¹²⁷ Perhaps this easier mode of carrying it out was a development subsequent to the writing of *Khulāsāt ut Tawārīkh* and *Hadiqat ul Aqālīm*. The change, however, is too minor to be regarded as an advance. Even as late as 1830 blasting of these rocks with gun powder was considered to be too risky to be attempted.¹²⁸

These miners were a permanent set of labourers¹²⁹ known as *Alashah*.¹³⁰ By virtue of their long practice in their profession

¹²⁰ *Ibratnāmah*, I, 47.

¹²¹ Burns, Some account of the Salt Mines of the Punjab, *J.A.S.B.*, I, 1832, p. 146; Watt, op. cit., 964.

¹²² Spate, 450. ¹²³ *Ibratnāmah*, I, 47.

¹²⁴ *Hadiqat*, 149. ¹²⁵ *Ibratnāmah*, I, 47-8.

¹²⁶ *Hadiqat*, 149. ¹²⁷ *Ibratnāmah*, I, 48.

¹²⁸ S. Burns, op. cit., 147. ¹²⁹ *Ibratnāmah*, I, 47.

¹³⁰ *Khulāsāt*, 101.

the deep, dark mine held no element of fear or danger for them.¹³¹ They lived in the surrounding villages, enjoying sound health though their complexion appeared pale.¹³² As regards their wages, the earliest record pertains to 1830, when they were being paid one rupee for every twenty maunds of salt brought out to the surface. This task could be performed by one man, his wife and son in the course of two days,¹³³ that is, each of the three could earn about six and two thirds *dāms* per day. Abul Fazl, however, states that the extracted salt was carried to the bank of the river where the price was divided between the miners and the carriers, the former taking three quarters and the latter, one quarter of the amount realised. Merchants bought at prices ranging from half to two *dāms* per maund of salt. The share of the Government was fixed at one rupee for every seventeen maunds of salt.¹³⁴ *Khulāsat ut Tawārikh*¹³⁵ and *Mīrāt ul Istelāh* testify to the state supervision of these salt works.¹³⁶

It need not be emphasised that salt has been an essential ingredient in food at all times in all places. It is also indispensable for preserving fish, dairy products and other foodstuffs.¹³⁷ It is, again, largely employed in pickles, the manufacture of soap, salting of hides, and on farms as additions to stock food.¹³⁸ Moreover, its curative properties¹³⁹ rendered it very useful in the preparation of medicines,¹⁴⁰ especially the *Lahori* salt. Even after satisfying these requirements the salt deposits in our region were still adequate for supplying salt used in making dishes, dish covers, lamps, shades and the like, chiefly at Shamsabad.¹⁴¹ *Mā'asarul Umera* adds ornaments¹⁴² to the list.

Though exact figures for the total output from either of the works are unavailable, we may infer from other evidence that the output was enormous, at any rate, adequate for the needs of the region under review. As a matter of fact, the region was also

¹³¹ Ibid.¹³² Burns, op. cit., 147.¹³³ Ibid.¹³⁴ A.A. II, 319.¹³⁵ *Khulāsat*, 101.¹³⁶ *Mīrāt*, 325.¹³⁷ Brown and Dey, 501; Forbes, III, 168.¹³⁸ Brown and Dey, 501.¹³⁹ *Tibb-i Sikandari*, f. 33a.¹⁴⁰ A.A. I, 625, n.¹⁴¹ A.A. II, 319; *Mīrāt*, 325; *Hadiqat*, 149; G. Md. Khan, 29a.¹⁴² Quoted by Blochmann, A.A. I, 525, n.

exporting its surplus to Bengal¹⁴³ and Kashmir.¹⁴⁴ Todd relates that the revenue from Sambhar salt in c. 1820, after the neglect of the lakes due to political instability, aggregated to Rupees seven hundred and fifteen thousand annually.¹⁴⁵ Obviously, the earlier yield must have been higher, whatever the actual figure might have been when Todd obtained his revenue account. Therefore, *Khulāsat ut Tawārikh's* testimony that it was worth several lakhs of rupees¹⁴⁶ need not be regarded as an exaggerated statement. Besides, there is a sharp discrepancy between the prices of the earlier and later centuries. Abul Fazl quotes the price at sixteen *dāms* per maund at Agra¹⁴⁷ (c. 1595), whereas in 1781, at Benaras the Sambhar salt was fixed at Rupees four a maund and Lahori salt at as high a price as Rupees thirteen a maund.¹⁴⁸ As regards Todd's prices, they range from two Rupees per maund at Jodhpur to four Rupees a maund at Sambhar.¹⁴⁹ In view of this variation Todd's revenue figures would certainly represent a reduced output, as he himself points out, and that of *Khulāsat ut Tawārikh* (c. 1695) a higher one, assuming that the difference in prices from 1595 to 1695 was not equally marked.

The yield from the rock salt was of still greater magnitude. Out of several deposits Khewra and Khora alone yielded several lakhs of maunds of salt.¹⁵⁰ To Burns in c. 1830 it appeared "inexhaustible—two thousand five hundred maunds of salt was being extracted daily"¹⁵¹. We have earlier seen that O. H. K. Spate, a modern writer, regards it as the "most massive in the world."

All of northern India was furnished with salt from these deposits. The Sambhar salt was transmitted to its eastern parts by the *banjāras* on caravans of oxen.¹⁵² Abul Fazl mentions the *banjāras* carrying salt to Bihar.¹⁵³ The export of the rock salt to other regions of India is borne out by Jourdain.¹⁵⁴

¹⁴³ R. Fitch, Ryley, 100; *Bahārīstān i Ghaibi*, I, 5.

¹⁴⁴ *Tuzuk*, II, 147. ¹⁴⁵ Todd, 484.

¹⁴⁶ *Khulāsat*, 57. ¹⁴⁷ *A.A.* I, 64.

¹⁴⁸ *Papers*, I, 304. ¹⁴⁹ Todd, 484, n.

¹⁵⁰ *Khulāsat*, 101.

¹⁵¹ Burns, op. cit., 147. Each Lahore maund is equal to 100 English lbs., Ibid.

¹⁵² Todd, 484. ¹⁵³ *A.N.* III, 586.

¹⁵⁴ Jourdain, 162.

Yet from 1770 onwards we find colossal amounts of Bengal and Madras salt imported at Patna for their further transmission westwards. For example, in one year, 1777, the Bengal salt alone imported at Patna amounted to approximately one hundred and twenty two thousand, six hundred and forty nine maunds. There were other varieties, Madras and Cinder, though lesser in quantity.¹⁵⁵ This import may be explained partly by the decline in the output of the Sambhar salt seen above. The Sikh depredations and political disorders in the Punjab during the latter half of the eighteenth century were too frequent to allow any industry to prosper. Salt works could hardly be an exception. The disadvantage was further aggravated by the constant menace to the traveller. Ghulam Husain and Sheikh Rahim Ali's travel accounts fully bear out the dangers and hazards they encountered in passing through the province.¹⁵⁶ This could account for a sharp decline in its movement eastwards, a situation which could not even partly be retrieved by any convenient and safer riverine through route running horizontally. The failure to carry salt to other parts would naturally further discourage production.

Thus, under the circumstances, the only solution lay in importing Bengal salt which was much cheaper even in normal years. The organised English traders-cum-rulers of Bengal filled in this lucrative gap. A much safer riverine route up the Ganges proved a real boon, both to the traders and consumers. Thus we may safely infer that the Sambhar and Shamsabad salt works were at their nadir during the last decades of our period.

SUGAR

Though evidently a rural product in the main, by our period some towns and cities too emerge as centres for the manufacture of sugar. Thus Lahore is represented as producing a high quality of sugar,¹⁵⁷ while excellent sugarcandy was manufactured in its vicinity.¹⁵⁸ Delhi produced best refined sugar.¹⁵⁹

¹⁵⁵ *B.B. of Rev. and Misc. Peds.*, Range 98, Vol. 22.

¹⁵⁶ See Chapter I.

¹⁵⁷ *Bābarnāma*, I, 388; Pelsaert, 32; *E.F.* 1637-41, 134; Thevenot, 86; *Ibratnāmāh*, I, 33.

¹⁵⁸ *Ibratnāmāh*, I, 33; Moreland, *India at the Death of Akbar*, 157.

¹⁵⁹ Thevenot, 68; Bernier, I, 283; *Chamanistān*, 51.

Biana,¹⁶⁰ Kalpi¹⁶¹ and Agra¹⁶² were famous for the manufacture of excellent sugar in large quantities. The sugar of this area was in great demand by the English factors for export abroad.¹⁶³ In fact, the entire region from Lahore to Agra is attested by Steel and Crowther, the earliest English travellers to pass the region, as yielding "great store of powdered sugar".¹⁶⁴ The eastern districts too produced immense quantities of sugar,¹⁶⁵ and Lucknow often supplied the above factors with consignments of this article for export.¹⁶⁶ Later on, in the last decades of our period, Benaras, Jaunpur and Ghazipur were producing a vast quantity of sugar.¹⁶⁷

The Hindustani sugar was extracted from canes. As a matter of fact, cane sugar has been regarded by some as indigenous to India.¹⁶⁸ However that may be, it is certain that it has been produced here since antiquity and was known, though imperfectly, to the Hellenistic visitors of this country.¹⁶⁹ Originally, the juicy content of the cane was consumed merely by chewing; the regular manufacture of solid sugar does not seem to date back further than 300 A.D., when granulated sugar was used for medical purposes in certain regions of northern India.¹⁷⁰

Like cotton, the continuity of the cane crops was maintained through the centuries and it constituted one of the principal crops of northern India during the Mughal ascendancy. Even today the Indo-Gangetic plains form the greatest sugar-producing area in the world outside the tropics and furnish some eighty per cent of the total Indian output. In the eastern Uttar Pradesh and Bihar the rainfall is adequate for the crop, but elsewhere in the region the ease and cheapness of irrigation make it profitable wherever frost is not normally experienced.¹⁷¹ The

¹⁶⁰ A.A. II, 192; E.F. 1646-51, 56-7.

¹⁶¹ A.A. II, 192; *Haft Iqlim*, I, 163a; *Khulāsāt*, 25; *Bahjat*, 70; *Hadiqat*, 171.

¹⁶² E.F. 1646-50, 255; E.F. 1655-60, 118.

¹⁶³ E.F. 1624-29, 228; E.F. 1630-33, 22; E.F. 1646-51, 56-7, 83, 225; E.F. 1651-54, 71.

¹⁶⁴ *Purchas*, IV, 268. ¹⁶⁵ Pelsaert, 9. ¹⁶⁶ E.F. 1651-54, 71.

¹⁶⁷ See Report for the year 1795 in *East India Sugar*.

¹⁶⁸ Hitti, *History of the Arabs*, London, 1949, p. 351.

¹⁶⁹ Forbes, V. 100; Watt, op. cit. 931.

¹⁷⁰ Forbes, V. 100. ¹⁷¹ Spate, 221.

Ā'in i Akbari statistics of the central provinces show that it was almost universally grown, and was of two kinds, the thin variety and the thick, *paunda*, variety.¹⁷² In fact, much earlier treatises of Hindu scholars¹⁷³ and *Tibb i Sikandari* classify the canes into as many as twelve varieties, *paunda* being included in all the lists.¹⁷⁴ This early evidence of the wide cultivation of the second variety disposes of Watt's assertion that it was not indigenous and acclimatised in India from foreign origin.¹⁷⁵ The thinner variety was better suited and grown exclusively for sugar extraction,¹⁷⁶ while the thicker canes were better for chewing purposes.¹⁷⁷ According to the *Ā'in i Akbari* two sugar-canes cost one *dām*.¹⁷⁸

Emperor Akbar had encouraged the cultivation of sugar-cane in the same way as he had done that of raw cotton.¹⁷⁹ In fact, the cane cultivation was more elaborate requiring greater labour¹⁸⁰ and longer time encroaching upon two seasons ruining the chances of the cultivator to harvest an additional crop in the meantime. The time for putting the sets of the cuttings in the earth varies from the middle of February to the middle of April and that of crushing the canes begins from 15th November to 15th December. Besides, in two cases out of every three the land had to be kept fallow for one or two seasons. In the case of the *paunda* canes for chewing purposes the land was required to be specially prepared. The consumption of manure too is greater than elsewhere with the usual frequent hoeings and waterings.¹⁸¹

Even after deducting the cost of these elaborate processes in its cultivation the margin of two-third produce of sugar-cane, as regulated by Emperor Akbar, was bound to leave its grower richer than the cultivator of *jowar* or even wheat due to the

¹⁷² A.A. II, 77, 80, 83, 85, 88. For *paunda* canes in Lahore also see '*Ibratnāmāh*, I, 33.

¹⁷³ L. Gopal, Sugar Making in Ancient India, *Journal of the Economic and Social History of the Orient*, Vol. II, Part, I, April 1964, p. 59.

¹⁷⁴ *Tibb i Sikandari*, Add. 17951, f. 21a.

¹⁷⁵ Watt, op. cit., 936. ¹⁷⁶ Ibid., 935.

¹⁷⁷ '*Ibratnāmāh*, I, 33; Watt, op. cit., 936.

¹⁷⁸ A.A. I, 66. ¹⁷⁹ See Chapter IV.

¹⁸⁰ E.I. Sugar, 74; *Risāla i Falāhat*, 40b; Watt, op. cit., 944-45.

¹⁸¹ Watt, op. cit., 944; also see A.A. I, 69, for a brief note on the subject.

difference in their current prices and uniform rate of assessment.¹⁸² For example, in the ninth year of that Emperor's reign, the revenue demand at Agra for the above-mentioned commodities would enable their cultivators to have the following margin.

	<i>Revenue demand in dāms</i>	<i>Cultivator's share in dāms</i>
<i>Jowar</i>	60 ¹⁸³	120
<i>Wheat</i>	90 ¹⁸⁴	180
<i>Common sugar-cane</i>	140—160	280—320
<i>Paunda</i> (canes)	180—200 ¹⁸⁵	360—400.

As late as 1826, the English in their survey of Allahabad District found that the "Poona and Kotora sugar-cane produces 100 Rs. profit a bigha after deducing expenses".¹⁸⁶ Though we know that the succeeding emperors, up to the end of the seventeenth century followed Akbar's policy of encouraging the cultivation of cash crops,¹⁸⁷ we have no way of ascertaining the degree to which it resulted in actually augmenting the acreage under canes. Circumstantially, of course, there are some indications in this respect. The emergence of Lucknow and later Benaras, Ghazipur and Jaunpur as major centres of sugar production were certainly additions in the orbit of this industry. Further, the ability to cater to the growing demands of the multiplied population since Emperor Akbar's days¹⁸⁸ and continual export of the commodity from the region,¹⁸⁹ are significant. The fact that Patna grew excellent sugar-cane,¹⁹⁰ had great

¹⁸² See Chapter IV for the same regulations relating to the cultivation of raw cotton.

¹⁸³ *A.A.* II, 78. ¹⁸⁴ *Ibid.*, 79. ¹⁸⁵ *Ibid.*, 77.

¹⁸⁶ *Board of Revenue C.P.* March 1826, Vol. 57, Allahabad State Archives.

I owe this piece of information to the kind courtesy of Major J.B. Harrison who allowed me its use. I am also grateful to Mrs. Harrison who took all the trouble of copying it out for me.

¹⁸⁷ See Chapter IV.

¹⁸⁸ Moreland, *The Agrarian System of Moslem India*, Allahabad, pp. 144-46.

¹⁸⁹ See below. ¹⁹⁰ *A.A.* II, 164.

traffic in "moist sugar",¹⁰¹ remained deficient in refined sugar till the end of our period,¹⁰² reflects the failure to develop the local industry rather than any decrease in the cultivation of cane, which was still abundant.¹⁰³

Method of Manufacture : Our earliest evidence relating to methods of processing sugar is that of English agents of Patna and Benaras. In 1793, they reported (from Patna) that the *rāb* or juice after it had been pressed out of cane was brought to a consistence by fire, put into bags and pressed down by heavy weights and kept so for some time (the purity of sugar depending upon the continuation of the pressure). During this operation a liquid dropped from the bag called *choa* which was preserved in pans and sold to the distillers for spirits or *araq*. The contents of the bag when purified from the *choa*, called *shakkar* was put into a vessel, and kneaded and worked up with a proportionate quantity of milk, then boiled and carefully skimmed. When by the heat it had obtained a proper degree of consistence or rather ropiness it was strained through a cloth into another vessel. It was now taken in certain quantities, proportionate to the extent of manufacture and brought to a greater degree of consistence, over the fire. Afterwards, it was put into an earthen vessel with a small hole in its bottom, through which the molasses drained off into a vessel beneath. The remaining contents in the upper vessel were covered with a cloth on which an appropriate quantity of a marshy creeper, called *sewār*, was placed. The heat within the vessel steamed the creeper so that its moisture dripped in and acted as a purifier of the sugar. After this operation the sugar or *chence* was taken off from the surface and dried in the sun. When sufficiently dried it was spread out (again in the sun) on a platform, pounded and ground down to powder by foot, in order to give it the requisite degree of fineness. It was again dried and finally packed into bags for despatch.¹⁰⁴

At Benaras the operation was relatively simpler. Extracted juice weighing about three maunds was put in a flat iron pan, on fire. It was continuously stirred and the liquor was skimmed

¹⁰¹ Tavernier, II, 23. He presumably means brown sugar or *gur*; also see R. Fitch, Ryley, p. 110.

¹⁰² E. I. Sugar, 157. ¹⁰³ Ibid.

¹⁰⁴ Ibid., also see Buchanan's description, Vol. II, pp. 659-62.

with a wooden ladle. If the idea was to make very pure sugar some milk was added to it. With the formation of grains the pan was withdrawn from the fire but the stirring was continued till it could cool off and form into coarse sugar known as *Bhelee*. This was scraped together with an iron scraper and laid out on cane leaves or cloth for use. In order to transform it into *cheenee* or grained white sugar it was subjected to further purification and frequent treatment in the sun. Four maunds of *Bhelee* yielded only one maund of *cheenee*.¹⁰⁵

Some decades later, Khairuddin Lahori describing the process of sugar manufacture employed at Lahore stated that it was the harder variety of canes which were selected for the purpose. The canes were placed in a press in order to extract juice which was then cooked in large iron cauldrons. When it had thickened it was dried. Sugar was made from the hardened part and the softer part was moulded into flat discs called *qand*. In fact, the substance obtained after boiling was capable of yielding very good sugar. In order to refine the *bhurah cheenee* or raw sugar the liquor was boiled and poured into larger earthenware vessels, which the traders collected numbering about hundred or so and carried them to their own places. Here they used to have two small reservoirs like a ditch dug in the earth one at the top of the other. They broke the vessel and let the contents heap in the upper part of the ditch. Then they spread a grass¹⁰⁶ over its surface, sprinkling it with the essence of boiled *sajji* and lime. The bagasse was piled in the lower ditch and set to fire. Thus the liquid was again boiled. The process was repeated two or three times until the liquid whitened. Then it was removed from the ditch and placing it in yet another ditch they trampled it with hands and feet. When it got fine and white like flour it was dried. This was called *shaker tari* or *būrah cheenee* from which sugarcandy or *misri* and sugar of first, second and third grades were made while the remaining part was used for mixing in the tobacco.¹⁰⁷

In spite of the slight variation in details in different parts of our region, they all reflect basically a very crude process of mak-

¹⁰⁵ E. I. Sugar, 73.

¹⁰⁶ It was called *jalāh* in the vernacular and it grew on the surface of water.

¹⁰⁷ *Ibraṭnāmāh*, I, 40-1.

ing sugar. No doubt with age-old practice they had acquired certain measure of effectiveness and even efficiency, but their antediluvian process is quite striking. Their equipments were equally rough and ready pieces, assembled together for the purpose. Among the implements was a sharp blade (presumably with a wooden handle) to chop the canes into small bits about four inches long.¹⁹⁸ A large wooden ladle to stir the liquor, a large iron scraper, and iron cauldron or large pans for cooking the liquor were also required. A mill was needed for extracting the juice from the canes. It was a large stone about four feet high, firmly fixed in the earth, the top of which was excavated in order to contain seven or eight seers of cane, with a timber attached to it for expressing the juice. A hole at the bottom of the container allowed the liquor to run through into the receiving vessel. Further, two bullocks to work the mill, some fuel, a water grass called *jalah* at Lahore and another one called *sewar* in the Gangetic plains; *sajji*, lime and milk for purifying the sugar and some clean cloth to protect it from flies, were the other necessary materials for making sugar. When not owned by the manufacturers these articles could be hired. We are told that the hiring cost of iron cauldrons at Benaras was Rupees two,¹⁹⁹ at Ghazipur Rupee one and four annas²⁰⁰, that of the use of mill was rupee one²⁰¹ and four annas²⁰² at the two places respectively. Amongst the human agencies sugar industry demanded the services of coolies or labourers for various odd and unskilled jobs and of carpenters and blacksmiths for fixing and repairing the mills. These were besides those who were directly engaged in manufacturing sugar. The labourers for expressing the juice at Ghazipur were being paid two and a half pice a day per head,²⁰³ those requisitioned for hoeing the ground around the cane plants were paid three pice a day per head.²⁰⁴ Carpenters and blacksmiths at the same place could be engaged at four annas a day.²⁰⁵

As regards variety, Abul Fazl in his broad classification terms them as hard and soft.²⁰⁶ The hard one could be brown sugar-candy, white, refined and white-candied.²⁰⁷ English factors generally used the word sugar²⁰⁸ quite indiscriminately with the only

¹⁹⁸ *E.I. Sugar*, 234.¹⁹⁹ *Ibid.*, 200.²⁰⁰ *Ibid.*, 194.²⁰¹ *Ibid.*, 200.²⁰² *Ibid.*, 194.²⁰³ *Ibid.*²⁰⁴ *Ibid.*, 193.²⁰⁵ *Ibid.*, 194.²⁰⁶ *A.A.* I, 69.²⁰⁷ *Ibid.*²⁰⁸ *E.F.* *passim*;

exception of candied sugar.²⁰⁰ Perhaps it was owing to the fact that they usually procured the best white refined sugar for export. Bhayya Anand Ram enumerates seven kinds in all,²¹⁰ whereas Anand Ram Mukhlis mentions only three, white *qand*, sugar and sugar-candy as being produced in Hindustan.²¹¹ That of the Rachnah *doābah* in the Punjab could be *qand*, sugar-candy or hard sugar²¹² (*tari* in the original text meaning either hard or bright). Evidently, the connotation of each of these terms depended on the region and period of usage. Therefore, in spite of the above enumeration, it is difficult to specify each of these varieties or even their exact number which were produced in any of the parts of our region at any given time.

This profusion of sugar in its various forms resulted in making it one of the most popular food adjuncts during our time. Sweet dishes, such as *halwa*²¹³ formed an important part of the daily menu of the period²¹⁴. Sweetmeats were still more popular²¹⁵, apart from their consumption by individuals, they occurred very largely on festal occasions, charities or as gifts.²¹⁶ Presumably, the use of sweetmeats gained greater popularity on account of their ability to withstand the hot climate for longer duration than other articles of food. Sweetmeat-making thus became a profitable business and *halwā'is* (confectioners) are repeatedly mentioned in our sources.²¹⁷ In fact, apart from regular confectioners selling their goods in shops, hawkers also sold sweetmeats after purchasing them from the former.²¹⁸ Evidently, the poorer would use sweets prepared in low quality sugar—*gur*—while the rich could afford the use of higher grades of sugar in their sweets. "Sugared drinks," *sherbat* or syrups were so common and of so many kinds

²⁰⁰ E.F. 1618-21, 51, 73, 76, 102, 112 and so on.

²¹⁰ *Dastur*, 62b. For some varieties see *Papers*, I, 304; *E.I. Sugar*, Report for 1793; and Buchanan, II, pp. 659-62.

²¹¹ *Chamanistān*, 51. ²¹² *Ībratnāmāh*, I, 32.

²¹³ A.A. I, 59. ²¹⁴ A.A. I, 59-60; Bāyazid, 234.

²¹⁵ A.A. I, 69; also see Provisioning at Lahore and Agra, Chapter I.

²¹⁶ P. Mundy, II, 181; *Shāhjahānnāma*, I, 552; *Akhbarat*, 1751-52, pp. 51, 53; *Sindhia* by F. Khairuddin Allahabadi, tr. Sarkar, pp. 12, 56; Irvine, *Bangash Nawabs of Farrukhabad*, 286; *Akhbārāt*, 1767-99, ed. by Yusuf Hussain, Haidarabad, 1955, p. 45 (of Eng. tr.) and p. 58 (of Per. text).

²¹⁷ A.A. I, 541; *Firishta*, II, 630, 631; Bayazid, 15, 234; Badaoni, III,

²¹⁸ Hoey, *Trade*, 115, 210; Pelsaert, 72; *Makhzan i Afghāna*, 106.

that Abul Fazl was unable to describe them.²¹⁹ Similarly, fruit conserves were of numerous types,²²⁰ prepared not only for domestic consumption but also as an industry as at Thaneshwar.²²¹

Sugar was still needed and used for medicinal purposes.²²² The inferior sort of *gur*, at an earlier stage, was used for adding in the tobacco²²³ after its introduction during the early seventeenth century. The juice content of sugar-cane was also used for vinegar²²⁴ and distilling of liquor called *araq*; brown sugar was considered more suitable for the purpose.²²⁵

As elsewhere, no systematic price list of sugar is available and here greater confusion is caused by the multiplicity of names and varieties mentioned. All that we have is as follows:

Place	Year	Variety	Price per Maund		
			Rs.	as.	p.
Agra ²²⁶	c. 1595	Refined sugar	6	0	0
		White sugar-candy	5	8	0
		White sugar	3	5	0
		Brown sugar	1	3	0
Lahore ²²⁷	1638	White grained sugar	7	0	0
		Second grade	5	12	0
			to		
Benaras ²²⁸	1781		6	0	0
		Sugar-candy	11	0	0
		<i>Oolax</i> (?)	10	0	0
		White powdered sugar	7	0	0
		Brown sugar	3	8	0
		Second grade of brown sugar	2	12	0
		<i>Qand i Dhatua</i> (?)	2	4	0
		<i>Rāb</i>	2	0	0

²¹⁹ *A.A.* I, 60.

²²⁰ *Ibid.*, Bayazid, 16, 30, 119. ²²¹ See above.

²²² For example see Badaoni, I, 452.

²²³ *E.I. Sugar*, 157; *Ibratnāmah*, I, 41.

²²⁴ *A.A.* I, 641; also see its very frequent use in pickles etc., *Ibid.*

²²⁵ *Ibid.*, 69.

²²⁶ *Ibid.*, 63, For the first two items Abul Fazl has given the price per seer; we have converted them to maunds at the usual rate of forty seers.

²²⁷ *E.F.* 1637-41, 134.

²²⁸ *Papers*, I, 304.

Apart from other factors such as marked difference in times and places of the above prices of sugar, the sheer multiplicity and even ambiguity of names prevents us from making any relative assessment in the movement of sugar prices. However, making a rough comparison between the two available wheat prices current at Agra in c. 1595 and at Benaras in 1781²²⁹, the ratio between wheat and brown sugar in the two cases would stand at 12/40 : 56/40 or 3 : 14 and 14/16 : 11/4 or 7 : 12. This implies that in Akbar's days the price of brown sugar at Agra was four and two-thirds times that of wheat, while in 1781 at Benaras it was three and one-seventh times that of wheat. It really reflects a definite lowering of the price of brown sugar in the course of two intervening centuries. But since there are several unknown factors involved, the above inference may be a little modified. Thus we may conclude that between the said two dates the rise in the price of brown sugar was considerably less than the rise in wheat price. This conclusion too is, however, only tentative as we have no knowledge of difference, if any, between the current prices at Agra and Benaras in 1595 and 1781 respectively.

Trade: Hardly anything is known about the internal traffic of sugar within our region and period, except that Patna used to send some to upper India.²³⁰

Large quantities of sugar used to be exported from all accessible points of foreign trade. Babar attests to the inclusion of sugar amongst the goods exported through Kabul to western regions by the Indian merchants.²³¹ Lahore sent consignments of this article by river to Sind for their exit through Lahiri Bunder²³² for destinations across the high seas. In the sixteenth century, Cambay in Gujarat served as the medium of export of north Indian sugar abroad.²³³ Ralph Fitch²³⁴ and later Tavernier observed great traffic of sugar at Patna,²³⁵ part of which, according to the former used to go to Bengal²³⁶ presumably for export. During the best part of the seventeenth century, the Dutch traders were engaged in the sugar trade, carrying Bengali—Patna inclusive?—sugar as far west

²²⁹ For wheat prices see Chapters I and III.

²³⁰ R. Fitch, Ryley, 110.

²³¹ *Bābarnāmah*, I, 260.

²³² Pelsaert, 32.

²³³ C. Frederick, *Hakluyts Voyages*, III, 206.

²³⁴ R. Fitch, Ryley, 110.

²³⁵ Tavernier, II, 23.

²³⁶ R. Fitch, Ryley, 110.

as Amsterdam.²³⁷ The English factors too invested largely in sugar at Biana,²³⁸ Agra,²³⁹ and later at Lucknow.²⁴⁰ Their consignments used to be sent down to Surat²⁴¹ from where they were loaded on ships sailing westwards. Part of Indian sugar used to find ready sale in Persia,²⁴² where besides the English, the Dutch factors too used to carry it.²⁴³ After the English factors had left Agra as their business headquarters for the north,²⁴⁴ our information regarding traffic in sugar also comes to an abrupt end, though we know that the Dutch traders up to the beginning of the next century, were still busy in the sugar trade from Patna.²⁴⁵ After a gap of almost a century, in the last decade of our period, we again find the agents of the English Company actively engaged in exporting enormous quantities of sugar from Benaras, Ghazipur and Jaunpur.²⁴⁶ Thus, for example, from Benaras alone in 1790, sugar worth Rupees fifteen thousand along with fifteen hundred maunds from an adjoining village were to be bought.²⁴⁷ Similarly, in 1792 twelve thousand maunds of sugar was exported from Benaras and Mirzapur and thirty five thousand maunds from Ghazipur. All these exports were on account of the Company and used to be dispatched to Bengal²⁴⁸ to be forwarded farther on.

It seems that the sugar industry was exclusively owned by the local people. There is no evidence of the earlier period to this effect; in 1792, however, the Ghazipur operators of the English Company reported that all the established works in the district were held by the natives.²⁴⁹ Similarly, at Patna, the natives owned the industry till 1793,²⁵⁰ though the area had passed into the Company's hands in 1765.

The foregoing survey of sugar industry in northern India during the Mughal regime reflects a continual prosperity. The cultivation of canes seems to have extended in the course of our period, so

²³⁷ Glamann, 153, 157. ²³⁸ *E.F.* 1646-51, 56-7, 225.

²³⁹ *E.F.* 1618-21, 142; *E.F.* 1624-29, 228; *E.F.* 1630-33, 22; *E.F.* 1651-54, 52, 71.

²⁴⁰ *E.F.* 1651-54, 71.

²⁴¹ *E.F.* 1618-21, 142; *E.F.* 1624-29, 228; *E.F.* 1630-33, 22; *E.F.* 1646-51, 56-7, 225, etc.

²⁴² *E.F.* 1618-21, 16; *E.F.* 1630-33, 22.

²⁴³ Glamann, 159-61. ²⁴⁴ See Chapter I. ²⁴⁵ Glamann, 159-61.

²⁴⁶ See above. ²⁴⁷ *E.I. Sugar*, 73.

²⁴⁸ *Ibid.*, 104. ²⁴⁹ *E.I. Sugar*, 137. ²⁵⁰ *Ibid.*, 157.

that its supply remained cheap and abundant. This factor, in conjunction with the prevailing cheapness of labour, simple mode of manufacture and ample demand for the article, helped keep its prices down and stimulate its supply. Though there was some competition with the imported Java sugar both internally and in some foreign markets, the low price of Bengali (Indian) sugar, eventually helped the balance in favour of the latter.²⁵¹ Thus, in spite of the stress of abnormal political conditions in the eighteenth century, the sugar industry appears to be marked with an upward trend throughout our period in Hindustan.

PAPER

Paper was originally manufactured in China and it was in use there as early as 105 A.D.²⁵² Several centuries later in 751 A.D. some Chinese paper-makers taken prisoner by Muslims were set to fabricating paper in Samarqand.²⁵³ Chinese paper was made from mulberry and other barks, whereas the Muslims freed it from the vegetational elements and invented rag paper in the fourth to tenth centuries. Paper mills were established at Damascus, in the Palestinian Tiberias and in the Syrian Tripoli,²⁵⁴ apart from that of Transoxiana. In Baghdad paper was fabricated for the first time during the reign of Harun-al-Rashid (786-809 A.D.) who secured several skilled artisans from China for the purpose.²⁵⁵

However, Alberuni, as late as the eleventh century A.D., noticed that northern India still used the bark of the *Tūz* tree²⁵⁶ as paper leaves. It is indeed surprising that India, in spite of its rather close association with China since ancient times, failed to acquaint itself with the technique and use of paper-making directly from the Chinese sources. Thus the industry of paper-making seems to synchronise with the establishment of Muslim rule in India at the beginning of the thirteenth century. Amir Khusru (651-725/1253-

²⁵¹ Glamann, 159, 160. For competition also see p. 152.

²⁵² Derry and Williams, *Short History of Technology*, Oxford, 1960, p. 232; D. Hunter, *Paper Making*, London, 1957, p. 52.

²⁵³ Alberuni, Book I, p. 171; *Bābarnāma*, I, 83; Derry and Williams, 232; *Paper Making*, 60.

²⁵⁴ Khuda Bakhsh, *The Renaissance of Islam*, Patna, 1937, p. 468.

²⁵⁵ *Paper Making*, 469.

²⁵⁶ Alberuni, I, 171; *Bābarnāma*, II, p. 232.

1325) was the first writer to refer to the manufacture of *Damishqi* or *shāmi* paper in Delhi.²⁵⁷ This was an improved variety. Barni's remark that this paper was washable²⁵⁸ reflects the durability of this variety of paper. We may, however, note that no further reference to the manufacture of paper at Delhi is made by the available sources.

Nothing is known regarding the progress of this industry during the succeeding centuries, except that Mahuan, a Chinese traveller visiting Bengal during the reign of Sultan Ghiyasuddin 'Āzam Shah (1389-1409 A.D.), noted the manufacture of white glossy paper from the bark of a tree.²⁵⁹ As Bihar was then a part of the province of Bengal, and since Abul Fazl noted the manufacture of paper in Bihar during the sixteenth century,²⁶⁰ it is possible that Mahuan's evidence related to Bihar as well. Later authorities such as *'Ajāib i Duniya*²⁶¹ and *Haqīqat Hāi Hindustan*²⁶² also refer to the manufacture of paper in Bihar. Shahzadpur, near Allahabad, was producing a "great store of best paper."²⁶³ While we have no information regarding the earlier period either way, we are told that during the rule of the Nawab Viziers of Oudh three varieties of paper were being manufactured at Lucknow, that the hemp paper called *Arwali* was being produced in large quantities.²⁶⁴ According to *Khulāsat ut Tawārīkh*, Sialkot too produced paper, the Mansinghi variety being reckoned the best as it had silken smooth texture, was clean, white and durable.²⁶⁵ Since the paper is named after Mansingh it is possible that the industry, or at any rate, this particular variety, was introduced either by him or during the period that he held Sialkot as his *tuyul*.²⁶⁶ The anonymous author of *Bayāz i Khushbū'ī*, writing in 1109 A.H., also refers to the Sialkot paper.²⁶⁷ Again, Khairuddin Lahori (wr. c. 1823) remarks upon the unparalleled whiteness of the Sialkot paper. In fact, he attributes the general demand for it among the traders who supplied the scribes of Multan and elsewhere with this quality.²⁶⁸ A recent writer, D. Hunter, has incorporated in his

²⁵⁷ Amir Khusru, *Qirā'n us S'adain*, 173, quoted by K. M. Ashraf, *Life and Conditions of the People of Hindustan*, Delhi, 1959, p. 103.

²⁵⁸ Barani, 64. ²⁵⁹ Mahuan, *J.R.A.S.*, 1893, p. 532.

²⁶⁰ *A.A.* II, 164. ²⁶¹ *Ajā'ib*, 185b. ²⁶² *Haqīqat*, 46b.

²⁶³ Mundy, II, 98. ²⁶⁴ Hoey, *Trade*, 128. ²⁶⁵ *Khulāsat*, 95.

²⁶⁶ *A.A.* I, 353. ²⁶⁷ *Bayaz*, 121a-b. ²⁶⁸ *'Ibratnāmah*, I, 19.

book several illustrations relating to the manufacture of paper at Sialkot.²⁶⁹

Evidently, these were only the major centres for the manufacture of paper. Its production on a smaller scale for the local needs was presumably being carried on in other towns and cities as well. That the *Shāhi Kārkhānas* of Agra and Lahore were producing paper may be inferred from the Ain 34 of Abul Fazl.²⁷⁰ The known existence of a *Kāghazi bazaar* at Farrukhabad²⁷¹ would point in the same direction. In fact, with the general diffusion of hemp production as ascertained from the *ʿĀin i Akbari* and the abundance of the linen rags and the bamboo material needed for paper-making, any amount of paper could be produced to meet the requirements.

It appears that in Hindustan the making of paper, both vegetational and non-vegetational, was an urban industry. This urban location seems to have been governed by the same factors here as elsewhere in the world. The first requirement was water, for washing the raw material as well as for making the paper itself. For high quality paper it was necessary that the water should be free from all impurities, such as iron. Thus, at Sialkot, the *Ek* canal was used by the paper-makers to wash their pulp. Its clean water possessed the singular property of lending extreme whiteness to the pulp.²⁷² Sometimes there were two supplies of water, one for the said two purposes and another for general requirements. In view of this consideration, the industry would tend to be drawn to the countryside near springs or main streams of rivers. But there were other factors involved. In cases where rags or waste paper were being used as raw materials, cities would be their best source of supply. Again, the towns comprised the principal market for paper,^{272a} whether it was produced for local consumption or for export.

Several articles served as the raw material for paper. Rag paper was manufactured at Delhi, as has been seen earlier. Bark, hemp and waste paper were also being used.

According to Herring, bark paper was made from a wide shrub

²⁶⁹ *Paper Making*, 106, 193 and 196, nos. 81, 169, 170 and 175.

²⁷⁰ *A.A.* I, 102-115. ²⁷¹ Irvine, *The Bangash Nawabs*, 280.

²⁷² *ʿIbratnāmah*, I, 19.

^{272a} Henry Parris, *Economic History Review*, Vol. 12, 1959-60, p. 479.

called paper mulberry. Its bark was remarkably smooth in texture. After being soaked in water, this bark was laid out on a smooth stone and beaten well with a mallet which was fifteen inches long and two and a half to three inches square. One of its sides was groomed very coarse, a second less coarse, a third exceedingly fine and the fourth in small squares. The beating of the bark was carried on with each side in succession, the resinous matter contained in it being usually found sufficiently adhesive. The beating separated the fibres of the bark and if it was properly conducted, the bark appeared like a web of fine linen. All the pieces of bark were laid in such a way as to overlap each other and then they were beaten again. The material was thus formed and by a brief exposure to the sunshine it became perfectly white. In order to make it fit for writing it was then rubbed with some hard object like shell until it was smoothed. This paper would bear ink perfectly well.²⁷³

The mode of preparation of the Lucknow *wasli* paper has been described by W. Hoey. Three *panseries* (i.e. about fifteen seers or a little more than thirty pounds) of the refuse paper were placed in a large vat and trampled with the feet until it was reduced to pulp. It was then washed in river water, and subsequently put into a large *hauz* (reservoir) filled with sixty pitchers of water. It was allowed to remain there for the next twenty days, during which it became transformed into a pasty condition. The paper-maker then lifted up the paste on a *chick* spread on a large frame, pressed it with his hand, drained it and then dried it. The yield weighed ten seers (or about twenty lbs.) of mill boards, measuring three feet by two feet.²⁷⁴ This *wasli* type was generally used as boards for book binding.²⁷⁵ The *zard kaghaz* or yellow paper was also prepared in the same way, the said thirty lbs, yielding one ream of twenty four *dastahs*. It was a rough coarse paper, foolscap size, soiled, dirty, white in colour and was glazed.²⁷⁶

This is the earliest account of the manufacture of paper from old refuse paper in Hindustan. It implies a considerable quantity of used paper which could be collected together for further manu-

²⁷³ Herring, R., *Paper and Paper Making, Ancient and Modern*, London, 1855, p. 22-23.

²⁷⁴ Hoey, *Trade*, 127-28. ²⁷⁵ *Ibid.*, 127. ²⁷⁶ *Ibid.*, 128.

facture. In c. 1880, waste paper was selling at Rupees three per maund.²⁷⁷ In brief, this utilisation of waste paper reflects a relatively large consumption of paper, at any rate, at Lucknow at both the first and the subsequent instances.

The *arwali* or hemp paper of Lucknow required more elaborate preparation. Four maunds of hemp were steeped in a *hauz* filled with twenty seers of *sajji* and fifteen seers of lime. The mass was pounded with a wooden instrument called *dhelki* and then washed clean. The process was carried on thirty times within a period of four months. The paper was then made in the same way as the yellow paper. In order to save time, the *hauz* could be used for another batch while the first had been taken out for washing, so that two batches could be prepared simultaneously. Being in great demand for manuscripts, it was produced in large quantities.²⁷⁸ From the amount of labour and ingredients required to make it, this seems to have been the most expensive paper. Its employment for manuscripts would point in the same direction. The two earlier varieties were perhaps being used for more general purposes.

Fortunately, through *Bayāz i Khushbū'ī*, we also happen to know the method adopted for thickening and starching the paper in order to make it crisp. A superior kind of white rice was rubbed twice with edible salt and then washed clean. It was then put under water for three days and nights so that it became soft and could be meshed with fingers. Then the water was rinsed out. Clean water was added to the rice and the mixture was placed on a fire to boil and stirred until thickened. Then it was allowed to cool. The sheet of paper was spread on a clean wooden block and covered evenly with this paste by means of a piece of white cotton cloth. After being covered with *kirpās* (hemp) it was then exposed to the sun. This process was repeated on the reverse side of the sheet of paper. Seals imprinted while the paper was still moist made well-defined and distinct marks.²⁷⁹

There are no figures available relating to the output or consumption of paper for the region during our period. Under the

²⁷⁷ Ibid.

²⁷⁸ Ibid.

²⁷⁹ *Bayāz*, 119b-120a. "Dressing with rice water was and still is the practice in the manufacture of Kashmiri paper which was once so famous." Watt, *Commercial* etc. p. 862.

circumstances the best that we can do is to recapitulate the frequency of requirements and incidence of use by the various sections of sixteenth to eighteenth century Hindustanis.

Ordinary paper was required for small paper bags or rather wraps as may be gathered from the *Ā'in i Akbari*²⁸⁰ and *Mī'rāt ul Istelāh*.²⁸¹ The same type of paper was also employed in the manufacture of fireworks.²⁸² Since the latter were a popular mode of entertainment we may assume that they were being produced in considerable quantities, thereby entailing the consumption of paper to a corresponding degree. Ornamental paper trees and flowers were cut with great care and fineness and were in great demand for festive occasions and during the period of *Moharram* mourning especially (by virtue of its being a Shia state) at the Awadh Court.²⁸³ Obviously these were dyed papers. While the *Ā'in i Akbari* only mentions *rangrez* (or the paper-dyers),²⁸⁴ the *Bayāz i Khushbū'i* devotes several folios to the method of dyeing them in various shades.²⁸⁵ Coloured paper was also used for making kites.²⁸⁶ During the later part of our period kite-flying had gained great vogue amongst the courtiers of Delhi²⁸⁷ and Lucknow.

Paper required for artistic purposes could not have been inconsiderable from the sixteenth to eighteenth century standards. It had to be very smooth, crisp, relatively thicker and of more durable kind. The keen predilection of the Mughal Emperors for art and painting is well known. Their generous patronage greatly fostered and popularized it. Thus Abul Fazl observes that there were more than a hundred eminent artists and painters who had achieved the highest reputation and mastery over their art, and that the number of the lesser and middling ones was much larger.²⁸⁸ Again, the Emperor had assigned to painting a separate department which was well furnished with the requisite materials and staff.²⁸⁹ In fact, later on Thevenot's treatment of the painters

²⁸⁰ A.A. I, 61. ²⁸¹ *Mī'rāt*, 194, 323.

²⁸² *Bayāz*, 140a, 141a, 147a; *Mī'rāt*, 30.

²⁸³ Keens, *A Handbook for Visitors, Allahabad, Cawnpore, Lucknow and Benaras, Calcutta*, 1896, pp. 68-9.

²⁸⁴ A.A. I, 320. ²⁸⁵ *Bayāz*, 111a, 121b-123b.

²⁸⁶ *Mī'rāt*, 426. ²⁸⁷ *Chamanistān*, 40.

²⁸⁸ A.A. I, 114. ²⁸⁹ *Ibid.*, 113, 115.

of Delhi and Agra in separate categories,²⁹⁰ indicates that they were to be found in large numbers at all events in these cities. Numerous extant masterpieces of the succeeding period reveal that the art continued to flourish.²⁹¹ Indeed, we are told by Anand Ram Mukhlis that even as late as c. 1740 the output of these artists and painters was so large that they began to display their masterpieces publicly outside the *Fatehpuri* mosque in Delhi.²⁹² Consequently, the demand for art paper, reflecting its greater production, could have only grown with the passage of time.

A tough and more durable variety of drawing paper was needed for cartography. Aside from circumstantial evidence²⁹³ that the art was known and practised we have some surviving city²⁹⁴ and route maps,²⁹⁵ pertaining presumably to the later part of our period, which show the thick and durable paper used. However, with no other detail to go upon it is difficult to assess the amount of paper thus used.

Thick boards were required for book-binding, as mentioned earlier. Book-binding had been known and practised since a much earlier period. The libraries of Emperor Akbar²⁹⁶ and Sheikh Faizi consisted of beautifully bound volumes.²⁹⁷ But apparently these covers were of leather. Book-bindings of paper board are recorded for the first time during the Nawabi rule at Lucknow. Generally the binder himself made the boards for his own use

²⁹⁰ Thevenot, for Delhi artists see p. 65, for those of Agra, p. 55.

²⁹¹ For example, Prince Dara Shukoh's Album collected by Skinner in three volumes and preserved in the I.O.L.

²⁹² See Chapter I.

²⁹³ For example, in *Juanpurnāmah*, the author promises to append a map of the town in the end, see pp. 119, 121. Unfortunately, this map is missing even in the MSS. copies of the work in the British Museum.

²⁹⁴ There are two maps of Delhi in the I.O.L. One is dated 1808, but is rather brief. The other, though larger and more detailed, showing some of the principal wards, buildings and streets, etc. is very badly done.

²⁹⁵ There are two route maps in the I.O.L., one from Delhi to Qandahar via Kabul, the other stops at Kabul. The first measures 80 feet by 10 inches and the other 20 feet by 8 inches. The smaller one is very beautifully done and its paper is relatively smooth.

Route maps were known, at any rate, to the later Mughals. In 1158 A. H. Emperor Mohammad Shah while setting out to reprimand the Rohillas had ordered his *waqā' nigār* to prepare such a map up to Garh: Mukhteswar. *Safarnāma*, 6.

²⁹⁶ Bāyazid, 377.

²⁹⁷ Badaoni, III, 421.

from waste sheets of paper, perhaps partly with a view to utilising his leisure hours profitably. However, they were also available at the *Daftarīs*. In either case, the method of preparation was the same as noted earlier.²⁹⁸ The discovery of this relatively cheaper material for book-binding must have proved a great boon to the not so rich bibliophiles, which, in turn, would stimulate the production of thick paper board.

But by far the most frequent and substantial use of paper was for ordinary writing. Some idea, however vague, may be formed by considering those who would generally require it.

Official Use: The state machinery of administration as modelled by Emperor Akbar was perhaps the largest single consumer of paper. An infinite variety of state records maintained and preserved at the centre and provincial capitals, several regular *akhbārāt* (newsletters) recorded at and despatched from the provinces to the centre, multiple copies of revenue assessments, accounts and computations recorded at the parganah, sarkar, subah and centre, presuppose a vast supply of paper.²⁹⁹ Even during the period of decline of the empire, no notable change in the above system within our area had occurred. Consequently, the volume of stationery required could only have grown with the passage of time. Thus Bhayya Ānand Rām, writing at Kara (Allahabad) in c. 1143 A.H., counsels the state functionaries and imperial clerks in his *Dasturūl 'amal* upon how to prepare three copies of each report for submission to the centre,³⁰⁰ or how the *mutasaddīs* should maintain in writing daily accounts, details of all business papers issued or received and the income as well as the daily expenses incurred, for the supervision of the *Diwān*.³⁰¹ Since the paper was supplied at the cost of the state,³⁰² no economy in its use could be expected from the staff concerned. On the contrary, they are more likely to have erred on the other side.

The emperors required rather tough and ornamental papers for their routine *Farmāns*. Ornamental paper was also needed for

²⁹⁸ Hoey, *Trade*, 122.

²⁹⁹ Indeed it was on account of this enormous consumption of paper that Sarkar terms it a veritable "Kāghzi Raj," see his *Mughal Administration*, Patna, 1920, pp. 7-8.

³⁰⁰ *Dastur*, 90b.

³⁰¹ *Ibid.*, 50a.

³⁰² *Ibid.*, 157a.

the correspondence of the emperors and the aristocracy. The volumes of paper required in either case could not have been large, but it is significant from the point of view of varieties that had to be furnished at all costs.

The establishment of peace and order and the smooth running stability of the government since Emperor Akbar's days had greatly stimulated the business activities of the commercial classes. Merchants, bankers, brokers and traders used paper for maintaining accounts,³⁰³ issue of cheques, insurance correspondence and such other exigencies as may arise in the course of their transactions. For instance, Bhayya Anand Ram at one place refers to about nine forms of documents agreed upon and signed by the parties concerned.³⁰⁴ There are several other specimens of the same nature elsewhere in the manuscripts.³⁰⁵ The transactions of the East India Company factors also evidence the employment of paper both by the Company and by the natives at the various stages in the prosecution of their business.³⁰⁶ The total amount of paper required for business purposes could not have been negligible.

However, a much larger quantity of paper was needed for books. Not only was the collection of books a professional necessity for the learned and teaching classes, but it was also a source of intellectual entertainment of the aristocracy. Indeed, the collections of some of the Mughal Amirs, for instance, those of Shaikh Faizi, Abul Fazl or Khan-i-Khanan are still acknowledged as extensive. Sheikh Faizi's library contained four thousand six hundred beautifully bound volumes,³⁰⁷ and Abdur Rahim Khan-i-Khanan had an excellent collection.³⁰⁸ In the succeeding period, with the greater diffusion of learning, the collection of books became more or less a routine matter among the courtiers so that the demand for paper by the scribes grew manifold as happened later on at the Court of Lucknow.³⁰⁹

The love of learning amongst the Mughal Emperors themselves is well known. Babar after adding to his own library that of

³⁰³ See above, Chapters I, II and III. ³⁰⁴ *Dastru*, 86b-89b.

³⁰⁵ For example, *Ibid.*, 171a-b, 173a and 175a-b.

³⁰⁶ It is abundantly clear by their surviving Records.

³⁰⁷ Bayazid, 377. ³⁰⁸ *Mā'asar i Rahīmī*, II, 594.

³⁰⁹ Hoey, *Trade*, 128.

Ghazi Khan (Governor of Lahore) had brought it to Agra,³¹⁰ bequeathing it presumably to his heirs. Humayun's devotion to his library (situated on the third floor of *Sher Mandal* in the Sher Shahi fort at Delhi) cost him his life. Emperor Akbar had acquired twenty four thousand volumes in his library.³¹¹ In fact, his library was entitled to receive one copy of every work produced in his empire.³¹² The succeeding monarchs maintained the tradition of collecting books with equal avidity. Indeed, Prince Salim (prior to his accession), Daniyal, and Murad,³¹³ and others had their separate libraries. Princesses like Gulbadan Begum,³¹⁴ Salimah Begum³¹⁵ and Zebunnisa Begum³¹⁶ kept their personal collections of books. The latter Princesses also established a literary academy and a library for the use of scholars.³¹⁷

Thus the total volume of paper required by royalty and the aristocracy could not have been inconsiderable. Further, the patronage received by the authors and scribes would account for their encouragement in their occupation. The galaxy of authors, scholars, poets, letter-writers, who flourished during this period³¹⁸ has to be seen to be believed. And some of them were indeed prolific writers such as Sheikh Mubarak,³¹⁹ who is credited with numerous volumes. These literary and academic activities could only result in a greatly increased demand for paper. Again, it led to further promotion of education. By virtue of their affluent circumstances, the emperors founded *Madrasahs* or institutions of higher learning. Thus Sultan Sikander Lodi had founded several *Madrasahs* at Agra, Mathura and Narwar, where no distinction of caste or creed was observed.³²⁰ Among the Mughal Emperors, Humayun had founded one at Delhi,³²¹ Akbar at Fatehpur Sikri and Agra,³²² Shah Jehan at Delhi near *Jāma Masjid*,³²³ and those of Aurangzeb, the most zealous of them all,

³¹⁰ Firishṭa, I, 204.

³¹¹ De Laet, 108-09.

³¹² *Bazm i Taimuriya*, S. Abdur Rahman Misbahuddin, Azamgarh, 1948, p. 124.

³¹³ Bāyazīd, 377.

³¹⁴ Ibid.

³¹⁵ *Bazm*, 440.

³¹⁶ Ibid., 459; Yusuf Husain, op. cit., p. 91.

³¹⁷ Yusuf Husain, op. cit., p. 91.

³¹⁸ For those during Akbar's reign see A.A. I, 606-17.

³¹⁹ A.A. I, 490; also see p. 537.

³²⁰ Yusuf Husain, op. cit., p. 74.

³²¹ Ibid., 76.

³²² *Bazm*, 126.

³²³ Yusuf Husain, op. cit., p. 84.

were scattered all over the empire (including our region of Upper India). Indeed, he even awarded stipends to the students and emoluments to the teachers,³²⁴ a step that could materially affect the cause of education. Māham Angah (Emperor Akbar's foster mother) and Princess Jahan Ara Begum had founded *madrasahs* at Delhi³²⁵ and Agra³²⁶ respectively. Similarly, nobles also founded educational institutions from time to time, like Abul Fazl at Fatehpur Sikri³²⁷ (still extant), Khan-i-Khanan,³²⁸ Ghaziuddin Khan and Raushanuddaulah at Delhi.³²⁹ Evidently, these are only some of the most famous ones of which some account has survived. Actually there must have existed a host of such *madrasahs*. As we know that much earlier during the reign of Sultan Firoz Shah, there were not less than one thousand *madrasahs* in Delhi alone,³³⁰ our inference as to the multiplication of *madrasahs* seems to be justified. The amount of paper required in these and similar other institutions must have been very substantial in the form of both books and exercise books. Primary education though fairly widespread is not so important from our point of view as great economy in paper was practised³³¹ by substituting wooden boards called *takhtis* for paper.³³² But in the case of higher education and learning no such substitute was used, thereby occasioning augmented consumption of paper.

Moreover, quite a considerable quantity of paper was required for the transcription of the Holy Qurān. Having a much wider clientele than any other single book,³³³ its transcription and distribution had become partly a charitable deed and partly a profitable source of living to the needy ones. Generally, Kashmiri paper dressed in rice water was in great demand for making copies of the Holy Qurān.³³⁴ The book-sellers must have insisted on its

³²⁴ Ibid. ³²⁵ It was called *Khairul Manāzil*, *Bazm*, 441.

³²⁶ Ibid., 455; Yusuf Husain, *op. cit.*, p. 84.

³²⁷ *Bazm*, 126. ³²⁸ Ibid.

³²⁹ Yusuf Husain, *op. cit.*, p. 87. For details of Ghaziuddin Khan's *madrasah*, see, Franklin *Asiatic Researches*, IV, p. 419.

³³⁰ Ibid., 72.

³³¹ Moreland, *India at the Death of Akbar*, 164.

³³² *Mī'rāt*, 198. He calls it *chob i Harfi*.

³³³ For its abundance at Agra in Akbar's days, see F. Xavier, *J.A.S.B.*, N.S., XXIII, No. I, 1927, p. 125.

³³⁴ Watt, *Commercial etc.* p. 862.

correct transcription as otherwise it could be returned by the buyer to the sellers.³³⁵

The picture that emerges is that several varieties of paper for different purposes were being produced in our region, which was self-sufficient with regard to this commodity. Some places appear as major paper-producing centres, while others catered for local requirement only. As paper was originally introduced for official use, its requirement in this respect multiplied manifold with the stabilisation and expansion of the Mughal sovereignty. Later, when the decay of the empire set in and centrifugal states were established, the consequent duplication of accounts, revenue assessments, news despatches and above all, secretarial work enormously augmented the consumption of paper. Evidently, it was this increased demand that occasioned the introduction of the manufacture of paper from waste. Waste paper obtained and collected from offices only could have been in such vast quantity as to be utilised for raw material. Card-board book-bindings were the natural corollary of the large-scale usage of paper.

The same assumption that paper was primarily produced for official usage would also serve as a tentative explanation of the intriguing absence of printing in Hindustan, when it had been operative in the Deccan since the middle of the sixteenth century.³³⁶ It is noteworthy here, that while the cause of education would have benefited enormously by printing, the type of official work then in vogue did not need this medium to an equally pressing degree. No doubt, the expansion of educational activities reflected in the period an increased usage of paper but the cost and relative scarcity of manuscripts (along with the unsettled state of eighteenth century Hindustan) would tend to confine its consumption within certain limits.

³³⁵ *Fatāwā*, 107.

³³⁶ V. Smith, *Akbar the Great Mogul, 1542-1605*, Delhi, 1958, p. 308.

CONCLUSION

OUR entire period of about two hundred and fifty years may be divided into two major political epochs 1556 to 1707 and the period of the Great Mughals and 1707 to 1803, when the Mughal rule passed through a process of steady decline. In these two periods there is again a point of departure in each signifying a change in the existing circumstances: In 1682 Emperor Aurangzeb set out for the Deccan never to return. His absence from Hindustan for about twenty five years enabled the hostile forces to gather strength, though they found their expression only after that emperor's death. In 1757, the English had occupied Bengal and Bihar and in 1764 they further wrested Benaras from the Nawab Vizier besides reducing him into their tributary.

1556-1707 : The establishment of independent Muslim rule at Delhi in 1206, saw to an end the myriad Hindu principalities scattered all over northern India. Whatever other factors (such as tradition) might have had their share, it is evident that these petty Hindu rulers with their limited resources and inconsiderable area to govern had neither the funds nor any urgent need to undertake special measures in the way of urbanisation. Muslim conquerors, on the other hand, had inaugurated an era of centralised government over a vast territory. In order to make the rule effective the state needed frequent urban centres which could form the administrative basis for covering an allotted area under its jurisdiction. The accumulated urban potentialities of the region were now being fully utilised and since thirteenth century town after town began to appear in all directions regardless of their past history, whether they were of century-long standing as Delhi, Benaras or Qanauj or raised from wilderness such as

Lahore, Hisar Firoza, Jaunpur, Agra or Allahabad. As noted above, the system of care, expansion and foundation of towns continued till about the very end of our period.

Adequate supply of water, constant source of provision and a considerable population are, amongst others, the necessary initial requirements for raising a town. While in Hindustan, there was no dearth of water, the general richness of its soil ensured an adequate and running supply of agricultural products in the towns. As regards the population, it is natural to assume that though a minority of inhabitants would be installed from the capital, other large cities or even distant parts of the country, the bulk would be drawn from the adjoining villages. The villages would thus be required to have a density enough not only for its own continuance but also to lend a part of their inhabitants to the towns. And yet the remainder of the rural working folks should still be able to produce, in addition to their previous output of agricultural goods, sufficient amount as to meet the increased demand of the growing town. In order to make the point clear let us take the village A in the Agra district with a working force of, say 100. With the appearance of Agra as a town 20 persons capable of labour shift to the new town from the village A, thus reducing the latter's working hands to 80 only. Normally, these 100 villagers of A used to produce an aggregate of, say X maunds of foodgrains. As the demand from Agra grew the remainder 80 cultivators would be required to produce the earlier X maunds inclusive of the provision for their twenty fellow farmers who had moved away to the town and, if possible, some additional quantity for the general urban consumption. The situation would induce the villagers to intensify their labour or make some other adjustments (such as extension of land under plough) so as to successfully furnish the town with its surplus supplies, prompt payments for which would go a long way in raising his own level of produce either in quantity, quality or both. It would be interesting to probe more deeply as to how far the quantity, quality and mode of production of agricultural goods was really affected by the frequent migration of rural inhabitants to towns.

Another outcome of the migration of some of the rural working force would be in the form of greater concentration of the remainder on cultivation at the cost of whatever craft they may

have been practising earlier as a sideline. The city migrants would, on the other hand, find it more convenient and remunerative to forget their agricultural past and take to crafts in earnest. The crafts would thus travel to the urban areas where greater facility in the form of ready, local market, raised demand and equally easy availability of raw material existed and stimulated production of all types of manufactured goods. With the passage of time specialisation in crafts or processes of crafts would get more and more marked.¹ Urbanisation, thus, signified higher level of the production of manufactured goods as compared to the pre-urbanised stage of industries.

The stabilisation of towns with their rapid pace of growth in population, industry, trade and administrative activities would have a direct bearing on the adjoining villages. The latter would supply manpower, raw material for town manufactures, much greater volume of foodgrains and other provision and obtain money in return of their goods, some consumer goods that the village is no longer in a position to produce on account of the pressure of demand on its labour for agricultural or generally rural products such as poultry or dairy goods. This increased urban demand would also lead to higher price of the cultivator's goods. Thus the relative ease in the scarcity of money in the rural parts would enable the cultivators to invest more and improve in his occupation. The higher investment was perhaps most frequently effected in the form of growing better quality crops. Because, while the supply of foodgrains virtually never failed in the towns, the state constantly urged and induced them to shift over to valuable crops.

Thus, the popular view that the urban-rural relationship did not extend beyond the revenue demand of the former from the latter is by no means a correct assessment of the situation. Regardless of the state, the urban markets provided the rural producers, apart from some consumer goods, material stimulus and strong encouragement for improving and augmenting his own output.

¹ Division and sub-division of labour in the crafts as practised in the Hindustani towns seems to have developed considerably. This is testified to by Pelsaert when he tells us, albeit deprecatingly, that ".....for a job which one man would do in Holland here passes through four men's hands before it is finished,.....", Pelsaert, 40.

We find that in the Mughal Hindustan there were four types of towns. First, primarily administrative centres where industry, commerce and even ecclesiastical sanctity developed in its wake, such as the capital cities, though in the course of time their administrative significance was sometimes overshadowed by their non-administrative significance; the example of Agra after c. 1638, may be cited here. Secondly, commercial towns such as Patna where administrative aspect followed the commercial activities. Thirdly, centres of pilgrimage such as Benaras or Muthra, where proximity to rivers facilitated commercial intercourse and constant crowding of pilgrims attracted craftsmen and service personnel from the neighbouring districts or even further off regions. Here again, the administration though essential, did not assume any pre-eminence in the general activities of the towns. Finally, there were towns which had risen because of some distinction achieved in the practice of some particular industry, e.g. Samana, Khairabad or Daryabad. Except for the general policy of fostering the growth of towns and looking after their proper administration^{1a} the state seldom took direct measures towards the progress of individual non-metropolitan towns.

We have earlier seen how our towns were viable units of the Empire. In addition to earning their own keep through their manufactures, these towns had sizable residue for export. With the passage of peaceful time the volume of surplus goods perhaps rose so high that the operations of the existing traders proved inadequate, the Mughals then permitted European elements in the towns of Hindustan to carry on lucrative business on easy terms. There is no evidence to show that at this juncture (between c. 1570-1685) the interest of the native traders in any way suffered on account of this measure. On the other hand, other factors remaining the same, it would only serve to push up the industrial output to a still higher pitch.

The expansive orbit of European commercial activities was, by this measure, rendered less difficult of access to the Hindustani producer. Further, immediate payment for the goods delivered enabled him to effect quick turnover. The residence of European merchants in the towns of their business added to the profitable commercial activities of that particular place in the process of

^{1a} *A.A. II. p. 44.*

collection of goods of their choice and their eventual despatch to any of the imperial export points. The return cargo arriving after a lapse of some years used to bring in the precious metals (bullion or specie) as the payment for goods made at the other end. Owing to the extreme scarcity of silver and gold in the Empire, the proceeds from the sale of Hindustani goods in the countries abroad in this form was extremely advantageous; in fact, it kept the economy going. Moreover, the imperial exchequer also gained from the import-export duties, whose income would proportionately rise with the augmentation in volume and frequency of movement of goods. Thus the Mughal towns were not only viable but also constituted the source where goods were manufactured which could earn the much-needed specie primarily for circulation in the Empire.² The overseas export of foodgrains from the region under review does not occur in the available sources.

The absence of authentic census prevents us from venturing upon quantitative details of the urban population pertaining to either its vertical or horizontal growth under the Great Mughals. On the strength of the available descriptive evidence already stated, we may nevertheless, conclude that the period is marked with a definite urbanisational trend.³ Undoubtedly, the majority or aggregate Hindustani population still lived in villages, busily engaged in their rural pursuits but the towns afforded greater chances of progress and prosperity to the young and adventurous spirits. Villagers did crowd the towns as is testified to by Bernier,⁴ but we also notice that this migration was not followed by any shortage of foodgrains, raw materials, or general agricultural products in normal years in our area. This implies that the cultivators left behind could still furnish the required amount

² A.A. 1, 17-18.

³ Circumstantially it appears a reasonable inference that the urban population of Hindustan in absolute numbers was substantially higher in c. 1700, when the region was at the peak of economic prosperity than, say in the year 1911 (chosen by Moreland), when old crafts were in decay and the modern form of industries had yet to fill in the gap. If the assumption is correct then it follows that the urban population of c. 1700, constituted a much higher proportion of the aggregate inhabitants of the region than its counterpart in c. 1911.

⁴ Bernier, 205; quoted by Irfan Habib, *The Agrarian System*, 329.

of their produce⁵ and only those migrated who could be more useful in towns. So far, the migration was thus a healthy and promising procedure, inasmuch as an excessive surplus of agricultural commodities could glut the Hindustani markets, sharply bringing the prices down and generally upsetting the economic equilibrium. The ordinary villager thus enjoyed an option of village or some other urban employment : civil, military, state, private or independent.⁶ This certainty of employment disappears by about the beginning of 19th century.⁷ It is surprising that Moreland who during the period of his service in India must have been well aware of the mass of the unemployed Hindustanis, should altogether miss this point in his constant comparisons between 1605 and 1911.

1683-1707 : Economically there does not appear any depression in the general activities of our towns at this stage though the Emperor had left for the Deccan for good. A capital orphaned for about quarter of a century would be a hazardous proposition for any medieval monarch, it was much more so in the case of the Indian Mughal Emperor, as the base of their administrative and military structure was built upon landed proprietors (permanent or temporary, with hereditary rights or occupied by virtue of imperial grants), enjoying fully the right of maintaining military force. Each proprietor of land thus became a potential enemy to the sovereign. Though as long as the Emperor's effective control over the administration continued, these elements were kept in check, they could raise their heads only at the cost of their status, property, or service. But once any weakness in the vigour of central authority appeared, the tumult and chaos in an empire of such vast dimensions created by all those who could bring out an army in the open, would be

⁵ Since there was no such steep rise in the prices of agricultural goods as to become prohibitive to the ordinary urban consumer (negative evidence), we may infer that the production had risen in proportion to the demand increased greatly with the multiplication of population in the course of time.

⁶ We do not come across crowds of unemployed mass in our sources during the period under discussion.

⁷ See Heber, II, 120, 139 for thousands of unemployed Rohillas.

of a magnitude that not all the king's horses nor all the king's men (both left very little anyhow) could reduce them.

We may, however, note that notwithstanding the above factor, the momentum of the Mughal administration in the central and eastern Hindustan managed to survive Aurangzeb's protracted absence in the Deccan. It is more particularly worth noting since there was no Bairam Khan to represent the Emperor at the capital. Part of the credit would certainly go to the diligence and calibre of that Emperor himself who, in spite of the grave and stupendous local engagements, was able to devote time and energy to the contingencies of Hindustan.

And yet from what followed afterwards it would seem that all types of landed aristocracy, *zamindārs*,⁸ *jāts* and *sikhs*—or any fief-holder with interest in land, utilised this magnificent opportunity of certain amount of laxity in the imperial vigilance, to consolidate their position. They augmented their military equipment, undertook defensive measures and accumulated funds, sometimes by questionable means, such as withholding the imperial dues and tributes, occasional exactions from the adjoining areas, levying of *rāhdāri*, imposition of cesses, or getting the caravans waylaid. The *jāts* of the Agra-Delhi region were a militant and rebellious set of people,⁹ and were always a source of trouble to the Mughals.¹⁰ The local *zamindārs* now employed them for their own ends.¹¹ This rebellion had earlier been suppressed while the Emperor was still at the capital, they assumed greater power in the subsequent decades. The Punjabi Jats, organised into a body known as Sikhs, are also said to have

⁸ See Dr. Nurul Hasan's characterisation of the *Zamindārs* in "The Position of the Zamindars in the Mughal Empire", *The Indian Economic & Social History Review*, Vol. I, No. 4, April-June 1964, pp. 107-118.

⁹ A. N., III, 231; *Memoir*, cxix-cxx.

¹⁰ A. N., II, 251-52; Badaoni, II, 155; *Tuzuk*, (Persian) ed. by Syud Ahmad, Aligarh, 1864, p. 375-76; *Bādshāhnāma*, Abdul Hamid Lahori, Calcutta, 1867, Vol. I, p. 71-2, also see Vol. II, p. 425; *E.F.*, 1655-1660, p. 65.

¹¹ Irfan Habib, *Op. Cit.*, 340-341. Though he generalises the incidents as peasant revolts, but with one exception of the *satnāmīs*, where a religious colour is given to warp the issue, they are invariably the rebellions of the *Zamindārs* who had employed the peasants, mostly their own subjects for achieving their personal designs. No reference to any demand or grievance of the peasants occurs anywhere in these passages.

originally received substantial lands from Babar in return for Guru Nanak's encouragement to Daulat Khan Lodi to invite him (Babar).¹² Gradually enlarging their estates, the Sikh leaders changed the character of the community with aspirations for political domination in 1581.¹³ As for achieving this objective the Sikhs organised themselves in predatory hordes devastating and plundering all along. Thus the Mughals had from time to time taken actions in order to suppress their lawlessness.¹⁴ Though kept at bay during 1683-1707, they were, like Jats, able to further strengthen their ranks, funds and military strength.

The impact of the Jat and Sikh risings was disorder and insecurity in the region around Agra and Lahore. Constant threat of incursion shook the towns of Samana and Sirihind. These unsettling conditions were not at all conducive to prosperous industry and commerce. Consequently, the output of Samana piece-goods began to shrink and the foreign European traders moved away from Hindustan. The extent to which Lahore-Kabul traffic was affected at this stage is not known.

1707-57-64: Emperor Aurangzeb's successor Shah Alam Bahadur Shah was too far gone in years¹⁵ to overcome the odds and curb the growing recalcitrants. He expired in 1712 at Lahore. The Emperors who followed him were weak and ineffective, and this naturally made matters worse. This shift in the calibre of the Mughals, from successively strong to a series of feeble rulers had profound impact on the existing political set-up. The dormant imperfections of the Mughal system now appeared on the surface. The rulers unable to arrest the malady drifted along heedlessly, so that after 1707 some of the lamentable manifestations of the Mughal institutions became the norm.

The armed strength of the Empire, even under the Great Mughals "was not commensurate with its military responsibilities and the striking power of the army was not proportionate

¹² M. Rashid Akhtar Nadvi, *History of the Freedom Movement, 1707-1947*, Karachi, p. 138 & n. 1 & 2. It is a pity that the author does not disclose the source of this bit of information. But the future career of the sect would certainly support the statement.

¹³ Ibid, 139.

¹⁴ Ibid, 140-144.

¹⁵ He was 64 years of age at his accession.

to its numerical strength."¹⁶ In addition, the recent prolonged campaigns in the Deccan had put a great strain on the imperial army and its morale and vitality had yet not been restored.¹⁷ Thirdly, the *mansabdāri* system so useful and seemingly appropriate under the preceding reigns now went against the imperial interest. The *mansabdārs*, finding the kings worthless, no longer worked for the common cause of the Empire but sought to advance their own personal interest for which revenue-yielding assignments with a 'duty' to maintain a certain number of force was furnished by the state. The almost entire imperial force distributed amongst the *mansabdārs* and almost the entire imperial lands handed over to the assignees,¹⁸ these powerless rulers were left virtually as their dependents. Since the top nobility of the realm was so active in serving its own ends, the chieftains, petty *rajahs* and the *zamindārs* too had to adopt offensive and defensive measures and to remain alert to maintain or, if possible, extend their lands.

All these groups—the *umerahs*, the petty *rajahs* and chieftains, the *zamindārs*, the *jāts* and the Sikhs acting either singly or in conjunction with some allies against single or combined enemies had plunged the entire Hindustan, specially the western parts, into incessant internecine warfare. Indeed, in the course of 54 years, since 1707 to 1761 (third battle of Panipat), no less than sixty-four armed engagements took place¹⁹ in the region under review exclusive of Bihar. The feeble Mughal rulers after 1712, existed upon the mercy of this or that faction or even individual *amir* and were too helpless to take an energetic command of the situation and stay the tide of devastation and ruin raging all round.

Fragmentation of Empire under abler *umerahs* was a natural outcome of the deplorable state of affairs at Delhi. The emerging principalities too had to confront the general insecurity

¹⁶ Riazul Islam, *A History of the Freedom Movement*, p. 58; Akbar's standing army is estimated by Blochman at 25,000 men (troopers, musketeers & artillery). *A.A.* I, 256. But even these were perhaps not always kept in readiness as Badaoni states that the Emperor had no army worth the name, Vol. II, 193-94.

¹⁷ Riazul Islam, *Op. Cit.*, 58.

¹⁸ Badaoni, II, 193.

¹⁹ *Cambridge History of India*, IV, 319-448.

obtaining at the time ; consequently, the best efforts of these new rulers were directed towards making states as secure, strong and durable as was possible under the conditions. Thus the new rulers were involved into constant manoeuvres, change of sides, extension of land and resources, strengthening of their armed forces and, of course, frequent wars. Internally, they were benevolent administrators keeping the progress and prosperity of their states as cherished objectives. This attitude of the rulers afforded some semblance of peace and security to the harassed and bewildered common man. But the epoch was too tumultuous to admit of the survival of small principalities. Most of them, after enjoying brief life succumbed to the attacks of their more powerful neighbours.²⁰

The classical anarchy reigning supreme in Hindustan during 1707-1757, could not allow the normal urban life to continue unaffected. In fact, the towns as noted before, bore a deep impress of these unfavourable conditions so that the pace of decline of each of them was in proportion to the local political disturbance. When in 1757, the English assumed the rule over Bengal, Patna also passed into their hands since Bihar was then reckoned as a part of Bengal. Thus Patna which had so far escaped the general disorder, was again ensured safety from the external incursions of the western aggressors. For the time being there were no internal changes of any major significance reacting upon this town.

Thus we may conclude that the political upheavals of 1707-1757 were followed by the decline of our towns and at present no other adverse factor seems to have been of such a moment as to put them off their prosperous advancement.

1764-1803: Amongst the new principalities that had arisen on the ruins of the Mughal Empire, Oudh was considered the richest, largest and a well-governed one in the contemporary Hindustan.²¹ Consequently, people flocked its towns from the

²⁰ Such as the Bangash Nawabs of Farrukhabad, rulers of Najibabad, Aonla, and Bereilly. Even the Nawab Viziers of Oudh lost their independence to the English in 1764.

²¹ Firminger, *Historical Introduction to the Bengal Portion of "The Fifth Report"*, Calcutta, 1917, Vol. I, 89-90.

troublesome western parts. Though relatively secure on its western and southern sides, the eastern part was extremely vulnerable specially after Bihar had been occupied by the English. The reigning Nawab Vizier Shujauddaulah,²² therefore, organised a confederacy and took the offensive against the English with his well-reputed force.²³ He, however, sustained defeat (in 1764 at Buxar), had to hand over Benaras and other eastern districts (Jaunpur, Ghazipur and later on Allahabad) to the victorious party and also to accept their suzerainty. The English instead of direct annexation rightly considered it more politic to use Oudh as a buffer against the anarchical aggressive forces of the western Hindustan and their eastern possessions.²⁴ Tribute aside, the English also took measures to see that Oudh could not, at any time in future, become a threat to their subject province of Bihar. The Nawab's well-trained army was much reduced²⁵ and replaced by the English contingents under their own command.²⁶ The occupation of the eastern districts of the Oudh state, besides being a territorial gain, enabled the English to keep a close watch over the Nawab and ward off any danger from that quarter to their main territory of Bihar and Bengal. It was also, therefore, stipulated that the Nawab Vizier could not make war or peace with any external power without the previous consent of his suzerain, the English East India Company.²⁷ Even internally, the Nawab was no longer independent, the English resident supposed to represent the Company's interest at Lucknow never refrained from interfering even in Nawab's personal and local state matters.²⁸

This circumstance resulted in establishing a dual rule over Lucknow with all the attendant evils of such a contingency. The raising of Asafuddaulah to the *masnad* of Oudh seems to

²² The position of Vizier to the Emperor was granted to this Nawab by Taimur Shah, see *Shah Alam Nama*, 188.

²³ For his army see *Farah Bakhsh*, 182a.

²⁴ *Memoirs*, cxvi-cxvii; *Persian Correspondence*, III, 36.

²⁵ *Seir ul Mutakherin*, IV, 76; *Papers I*, 83; *Firminger*, I, 90; C. C. Davies, 13.

²⁶ *Memoirs*, cxvi.

²⁷ Thornton, II, 576.

²⁸ Heber, II, 79; Sleeman, II, 189, 201 and 202.

have been a piece of machination of the English as the well-known incompetence of that Prince enabled them to further extend their sway over the province.²⁹ Asafuddaulah's reign (1775-1799) witnessed the reputation of Oudh sunk in dirt, the treasury empty, his own army scattered and himself a pliable tool in the powerful and ambitious hands of the English agents. In 1802, Wellesley made Nawab Sa'adat Ali Khan sign a new treaty according to which he was to cede Farrukhabad as well as the western *doābah* districts (conquered from the Rohillas in 1774) to the Company.³⁰ The Nawab, was thus completely interned within his dominion, encircled on three sides by his sovereign power, the East India Company. As by the end of the century, the western anarchical elements had exhausted themselves into a disorganised lull, still in parts owing formal allegiance to the blinded Mughal Emperor Shah Alam, the East India Company proceeded to extend its sway. Agra and Delhi were thus brought under the British rule in 1803, though the Mughals were not yet dethroned.

Unlike other contemporary powers the English in India had had several advantages to aid them in their bold enterprise of supremacy over the capital. They all served a common master, the East India Company, an organised body of merchants with power and resources at its disposal though living thousands of miles away from Hindustan. All the Englishmen hazarding out to India, whether Company's servants or private individuals, had one common aim in view, maximum material profit out of this rich land in order to supplement the meagre yields of their own country. Furthermore, the alien atmosphere in which the Englishmen found themselves while in India, strengthened their national ties. No matter, what jealousies or conflicts existed among them, they invariably presented a well-integrated body amidst properly-concerted actions on the Indian scene. Finally, belonging to a nation making rapid progress, they were able to employ best brains both Indian and foreign to furnish them with the most judicious advice in regard to the multifarious activities of their projects. Consequently, their assessment of the existing situations and the policies they adopted

²⁹ See C. C. Davies, 78.

³⁰ E. Thornton, *History of the British Empire in India*, III, 212-13.

in each case, both for the present and future usually turned out to be sound and appropriate. In fact, they were the only participants in the eighteenth century India who made all their moves systematically with circumspection and foresight. And once the decision was taken they acted with firmness and persevered with determination.

By virtue of their basic mercantile character the English even after 1757 and 1764 did not let go of their economic interest. Indeed, after the assumption of power the orientation of the executive, legislature and judiciary in the acquired provinces was such as to enable them to raise their own gains as high as possible. For example, the expulsion of all other foreign merchants from Patna—even the native traders were required to obtain their permission before they could carry goods to and fro. Or the continuous unrequited export of goods such as opium.³¹ In fact, the entire approach of the English in moulding the administrative system of the provinces they governed was of a different character, a feature altogether unfamiliar and baffling to the 18th century Indian mind.

The foregoing survey shows that all our five towns had by the conclusion of our period fallen victim to political exigencies, in no case do the symptoms of decline originate from within. No failure of provisions, running out of water supply, collapse of industries or sudden *en masse* migration of urban population except under the stress of political disorders (as from Lahore and to a lesser extent from Delhi), in our towns is reported. Commerce, no doubt, suffered as the merchants were driven away from their place of operations because of the insecurity of roads and also somewhat by the fluctuations in the political field. Therefore, we may safely assume that political conditions and their impact apart, the towns during our period, manifested no sign of decay or even decline of their own. Indeed, the case of Agra fully bears out this conclusion. Even when in 1638 it was abandoned as capital owing to excessive heat, its progress and prosperity was by no means marred. Not lying on the direct route between Lahore and Delhi it had to a cer-

³¹ The outlay needed for investment in opium was defrayed by the Company from the land revenue collected from their Indian possessions, see Chap. III.

tain degree escaped the violence raging all round it. Thus the town continued to flourish till about the last two decades of 18th century.

Benaras too situated in safer surroundings retained its prosperity. Even the frequent changes in its Government have had no adverse effect on the city in general, at all events, till the end of our period. Even after 1764, its industries flourished, specially that of silk, while its commerce grew more lively chiefly in sugar and opium.

Industries: While the hinterland furnished the rural products to the towns, the industrial requirements were by and large met locally. This aspect of the towns had enabled them to assume the character of materially productive units of the Empire; they not only consumed what others could produce but also produced what others could use.

Though still requiring a detailed and systematic investigation of the Sultanate period, it is obvious that when Akbar ascended the throne, the existing towns have long had their industrial tradition. Therefore, this Emperor, on whom had devolved the formulations of the Mughal statecrafts, adopted measures which could further contribute in the advance of the industrial activities of Hindustan (as well as of the Empire). In fact, viewing the period as reflected in the foregoing chapters, we find that Akbar's (or Mughal's) political system broke up within a decade of the accession of weak rulers, whereas the industrial and commercial life continued intact till they succumbed to the prevailing disorders of eighteenth century. Indeed, it is a matter of surprise how even the cultivation could be carried on under such chaotic conditions and produce enough not only to feed themselves but also the largely multiplied urban population. But this was not all. We also notice that as soon as political horizon is cleared at a particular place, the process of rehabilitation is immediately set in (as at Delhi or later on at Lahore); or though surrounded by troublesome neighbours, spots not directly hit carry on their usual crafts and whatever commerce is possible, as happened at Agra. Furthermore, the native resilience of the industries at that particular stage was such that if pressed too hard at one place, they at once removed and revived themselves elsewhere, in more congenial areas. Thus we may conclude that whatever factors might have motivated

Akbar in moulding his industrial and commercial policies, they were so well suited to the times and firmly rooted in the terrain of the region that only the occupation of the English two and half a centuries later could overthrow it.

Establishment of peace and order was the prime necessity for any economic progress. Emperor Akbar had secured the region from all external aggressions, a measure that endured uninterrupted for about two centuries.³² Internally, the areas administered directly by the imperial staff were also quiet and submissive. But the quasi-independent chiefs of petty estates did not miss any opportunity of raising disturbance. As the payment of annual tribute and supply of occasional contingents of army were the only stipulations of agreement between the Emperor and these chiefs, the former had had no way of enforcing his orders upon the latter. Consequently, the chiefs either single-handed or in collusion with others—*zamindārs*, malcontents, or miscreants—employed any slackening in the vigil to disregard or even flout the Kings' orders. The repeated issue of the Emperors' regulations relating to the care of travellers and abolition of the inland toll on the movement of goods,³³ would indicate that these orders were not followed as strictly as they wished them to be. Evidently, the breach in the law would be brought about more often from the chiefs' quarters as they had less to fear from the royal displeasure than his own officials or subjects. As the decades wore on, highway robbery specially at night, exactions of *rāhdari*, and molestation of travellers (in the western parts) grew, which correspondingly narrowed down the radius of safer zones. This fact reflects the assertiveness of the vassal zamindars at work.

Nevertheless, till c. 1685, the greater part of Hindustan was relatively secure for traffic specially the riverine routes,³⁴ and short distances. The importance of the last-mentioned ones gets more emphasised when we realise the multiplicity and expansion of the non-urban bazars, which must have followed the legislation of Emperor Akbar fixing the state demand of revenue in cash.

³² Nadir Shah invaded Hindustan in 1739-40. It was the first external attack after the establishment of the Mughal rule at Delhi.

³³ A.A. II, 57-8; 378 and n. 3, 410 and n. 1; Tuzuk, (Per. ed.), p. 4; Elliot and Dowson, VI, 494.

³⁴ For the concession of traffic granted on these routes by Emperor Akbar, see A.A. I, 281-282.

In view of the same regulation small denomination coins were issued so as to facilitate minor transactions. As a matter of fact, fraction coins of rupee have long since been minted in copper, but now the frequency of their requirement had vastly increased, their number was, therefore, accordingly raised. Thus, in c. 1600, there were forty-two copper mints in the Empire issuing copper coins for general circulation. Moreover, the Emperors had allowed free minting³⁵ presumably for the sake of encouraging money to circulate and add to their existing number.

Rightly realising the vital importance of export trade on the internal economy Emperor Akbar had made several adjustments at the ports,³⁶ in the naval staff,³⁷ and traffic dues,³⁸ all of them calculated to facilitate and promote the movement of goods in and out of the Empire. Since the imperial territory did not extend beyond the coast, he undertook no gigantic and very possibly unsuccessful expedition to drive away the firmly established sea masters, the Portuguese.³⁹ Instead, with shrewd practical sense he used them as the traders of his own goods, as the Indian merchants had presumably been doing before him.⁴⁰ It is very likely that Asian and Indian traders were still busily engaged in overseas commerce,⁴¹ but an additional body of

³⁵ *E.F.*, 1634-36, pp. 68-9; 1646-50, p. 185; Tavernier, I, pp. 7-8, 20, *Papers*, I, 212-232; also see *A.A.* 1, pp. 38, 39. Anybody could carry gold, silver or copper to the imperial mints to get the metal converted into coins. The imperial assayers of the mint saw to the fineness and weight of the coins struck.

³⁶ *A.A.* 1, 274.

³⁷ *Ibid.*, 280-1.

³⁸ *Ibid.*, 281.

³⁹ The Sultans of Turkey, Gujarat and Egypt, sometimes in alliance with one another, had earlier in the century, engaged the Portuguese in several naval campaigns in order to expel them from the Indian Ocean. But the efforts of the Asian powers were all in vain. See M. L. Dames, *The Portuguese and the Turks in the Indian Ocean*, *J.R.A.S.*, 1921, I, pp. 2-25.

⁴⁰ For the Portuguese traders actively engaged in Gujarati commerce see Barbosa, 28, 67-8; Varthema, 46; C. Frederick, *Hakluyt's Voyages*, III, 206.

⁴¹ Bayazid on p. 354-55 imparts an interesting bit of information that Nawabs Qalij Khan and Qutub Khan (for their careers see *A.A.* 1, 380-82, and 353-54, respectively,) were joint proprietors of a boat Mahmoodi operating up to Daman. Again, *Ma'asar i Rahimi* mentions *Rahimi*, *Karimi* and *Salāri* as the ships belonging to Abdur Rahim Khan i Khanan; II, 611. Though Haj pilgrims generally availed of their ser-

traders, commanding the entire oceanic region from Macao in the east to the coast of Portugal in the west, would certainly be a valuable asset in providing a great spurt in the industrial and commercial activities of the realm. Accordingly, the Emperor granted commercial facilities to the Portuguese, without permitting them any inland base on the imperial west coast. In Bengal, on the other hand, the Portuguese did not enjoy similar advantages of trade. The Emperor, therefore, in order to ensure a constant flow of traffic through Bengal ports accommodated them within the *subah*. He granted them a foothold by handing over Hugli (in 1579-80), though again reserving the charge of fortification and maintenance of law and order to himself. Besides, the Emperor also caused some Armenian merchants to settle in the country.⁴² Later on, other European companies such as the Dutch, the French and the English too were accorded commercial facilities in the Empire, and when the Portuguese power began to decline, these late-comers kept the ball of Indian commerce rolling.

On the north-west frontier a road through the Khaiber⁴³ and a bridge over the river Sind at Attock were useful constructions for travellers and traders alike. Emperor Jahangir's *firmān* remitting the import and export dues on this route, further emphasises the anxiety of the Mughal sovereigns to foster this traffic. It is possible that the profit accruing to the Empire out of this trade was much more than what appears at the first sight. The egress of Hindustani goods through this overland and hilly terrain could not have been altogether indispensable since several imperial sea ports could have been used instead and perhaps with some advantage arising out of cheaper cost of sea traffic. Under the circumstances, we may deduce that, at least in respect to imports, the overland traffic with its western neighbours involved some enormous value to the Empire. Presumably, the precious

vices, these were used by the traders as well, II, 574. Furthermore, *Bādshāh-nāma* mentions a certain Ali Akbar bin Haji Kamal Isphahani as a trader owning some ships which operated between Cambay and Basra, and other ports. II, 607. Also see *E.F.* 1646-50, pp. 62, 63-65, 105, 130, 133 and 185 etc.

⁴² E.D., VI, 85; Pelsaert, 16, 18; *Dutch Records*, 1629-34, IX, p. cccxviii-7; Tavernier, I, 112; *Tuzuk* (pex-ed.) p. 324.

⁴³ *A.A.* 1, 406; It was fit for wheeled conveyance.

metals imported through the sea ports were no longer adequate for the growing demand of money for circulation occasioned by the much greater frequency and multiplicity of internal transactions. Therefore, in order to supplement the consignments of bullion, specie and copper received at the sea ports, Jahangir threw open the Kabul and Qandahar routes for duty-free traffic. But Qandahar was a disputed point and precariously held by the Mughals. Except for a brief interval of eleven years, they had lost it in 1620.⁴⁴ Hence they concentrated more urgently on keeping the Kabul route as secure and convenient for traffic as was possible in the subsequent reigns.⁴⁵

The programme of raising the output of the manufactured goods to the maximum as envisaged by Akbar could not have been accomplished without an ample and running provision of the raw material. All the Great Mughals uniformly adhered to the encouragement of the cultivation of valuable crops such as cotton, sugarcane, indigo, opium or oil seeds. If the state gained from higher revenue assessment on these crops, the cultivator too stood to derive proportionately higher profit from their sales as the revenue rate was still fixed at one-third of the expected yield.⁴⁶ The measure seems to have hit the target so that even after the disruption of the Empire, the process in the less affected zones and years continued intact. Down to the very end of our period never do we find the much enlarged demand of these commodities confronting any shortage in their supplies and yet the production of foodgrains did not fall short of the requirement in normal years.

⁴⁴ In 1595, the Persian deputy Muzaffar Hussain Mirza of Qandahar came over to Akbar; in 1620, the Persian King Shah Abbas recaptured it; in 1638 Emperor Shah Jahan again wrested it from the Persians, but in 1649 it was finally lost by the Mughals. The importance of Qandahar was equally great for India and Persia because of ".....its command of the land route to Persia on which the bulk of trade between that country and India was still carried on.....". Cambridge Hist., IV, 170.

⁴⁵ Though by 1707, it is said to have become a 'barren possession'. Ibid., 316.

⁴⁶ Large tracts of land brought under poppy in the last decades of eighteenth century by the East India Company especially in Bihar did not, however, exercise equally healthy effect on the general economy. Perhaps one of the reasons was that other essential crops had been sacrificed in order to make room for the far more lucrative yield of opium.

Metal and mineral resources of the region were well tapped by the Great Mughals; wherever and whenever any deficiency in the supply of any article occurred (as that of gold, silver and later on, of copper, when the mines ran out of their usual quantity of output) it was conveniently made up by imports. The yield of iron mines was always plentiful. It had easily furnished the additional quantity required for some recent introductions of the Great Mughals in armours and weapons and also, the enormously increased demand for these commodities in the subsequent period.

Emperor Akbar had also taken interest in the sphere of individual industries. His introduction of cotton carpets proved more durable and also profitable to the region than the training of the Persian experts in silken goods,⁴⁷ crafts borrowed from the Portuguese at Goa,⁴⁸ or his own inventions in shawls and woolsens.⁴⁹ It is noteworthy that Akbar's descendents did not make similar attempts at securing skilled craftsmen from other countries, presumably because Indian artisans had, by about the end of 16th century, acquired all that they could usefully impart.

The location of the industries was determined mainly by two factors, the availability of raw material and the closeness of the markets. Thus they could be urban, rural or, as happened in some cases, both combining their labour in turning out a single piece of article. Sugar-making was a rural craft, no doubt, because of transportation difficulties. Further, prolonged exposure to the sun occasioned by the movement of canes to towns partially dries up its juice content. Carrying sugar to the urban markets was a far more convenient system. Paper manufacture was, on the other hand, an urban industry as the towns were its principal markets; rural inhabitants could not have had much use of the article.

Judging from the existence of as many as thirty two urban centres of cotton textiles within our region and period,⁵⁰ we may definitely classify this as primarily an urban industry. Towns consisting of large agglomerations of humanity would certainly consume a large portion of the total volume of cotton fabrics produced. Agra, for instance, in 1640, is said to have had a popu-

⁴⁷ *A.A.* 1, 55; 87.

⁴⁸ *A.N.* 11, 322.

⁴⁹ *A.A.* 1, 91-2.

⁵⁰ Chapter IV.

lation of approximately seven lacs. Assigning ten yards per head as the minimum clothing requirement of the period,⁵¹ Agra would want at least these 70 lac yards annually. Minor consignments from neighbouring districts or imports from other towns aside, the bulk of this requirement would have to be produced locally. The neighbouring districts would, at any rate, be far too busy in contributing their usual share of growing and providing raw material for the urban weavers to launch upon a project of furnishing a minimum of seventy lac yards of fabrics annually to the inhabitants of Agra. It was, however, more feasible to convert the raw cotton into yarns within the village precincts and then despatch them to the towns. The remainder of the processes after weaving such as ornamentation, bleaching, dyeing, printing and so on were also effected in the towns where professionals in each one of them, or at times more than one, carried on their own business. The urban weavers, bleachers, dyers, printers and embroiderers having specialised in their specific processes could perform their jobs with greater skill than, say the rural cultivator cum-dyer or printer. When after a while some of the towns had acquired greater proficiency in any particular line of the craft, say dyeing, printing or embroidery work, merchants moved the unfinished goods back and forth in order to obtain better results.

The pressure of growing internal demand and ever-widening foreign markets up to about the end of 17th century had stabilised the production of cotton fabrics on an upward mounting trend. Therefore, when, later on, any particular centre failed to provide the requisite atmosphere for further continuance of the industry, it shifted to more promising zone. Thus, while in the 17th century the western Hindustan was more advanced in respect to this industry, in the following century the central and eastern parts became more prominent. It indicates that notwithstanding the high magnitude of production achieved in the preceding centuries, Hindustan in the 18th century still afforded further scope for the expansion of this industry.

The labour potentiality of Hindustan had always been rather plentiful. The Mughals, therefore, could safely count upon directing the available hands to be profitably engaged in developing the region into a vast productive unit. Apart from the

⁵¹ Moreland, *India at the Death of Akbar*, p. 292.

husbandmen and the manufacturers, the expanding economy also attracted a host of merchants, *sarāfs*, shopkeepers, accountants, grain dealers, itinerant merchants (known as *banjāras*), clerks, brokers, transport personnel, service-men and so on.⁵² The state looked upon the merchants as an integral part of the social organism⁵³ and was considerate of their interests.⁵⁴ The merchants also enjoyed certain amount of social prestige. *Sarāfs* were wealthy people and were respected for their technical skill. Clerks abounded, a close study of the contemporary literature shows that no piece of team work, important undertakings or even routine daily business transactions could be accomplished without some *munshi* jotting down the details. About other lines we may conjecture, but as for the accountancy we know that there used to be some kind of training for the post, educated men could enter it and it was regarded as one of the responsible and respectable situations.⁵⁵ There were grades amongst brokers, generally they did well by themselves; in more prosperous atmosphere they could even rise much higher in the ladder. In short, as all these professions acted, at varying stages, as the link between the producers and consumers, the progress of industry and commerce had largely multiplied their number; we consequently, find them crowding our entire zone of survey.

By laying down such a general line of approach and employing means to implement his policies Emperor Akbar had certainly built up a sound, stable base for developing a prosperous economy Hindustan. Thus with 16th—18th century standard in view, the Mughal Emperors had been remarkably successful in achieving a very high magnitude in the output of manufactured goods, ensuring internal and external markets, keeping the people busy in useful and remunerative crafts; all signifying a higher level of economic life. And perhaps it was amongst the artisans and merchants, if not also among the law-abiding cultivators, that the Mughals had become most endeared. Nothing short of sheer force could turn them against the dynasty which had benefited them so greatly; even during the worst period the urban popu-

⁵² For some of these at Agra see Pelsaert, 60-68. For clerks and brokers also see p. 78.

⁵³ A.A. 1, 4.

⁵⁴ Ibid, 20; also see Bernier, 1, 270-71.

⁵⁵ *Navisindigi*, 65b-66a-b.

lation of Lahore and Delhi did not waver and join hands with the rebels. This would, to a certain extent, at any rate, explain the enduring loyalty and goodwill of the Hindustanis for their sovereigns, even when they were all past such glamorous designation. The Great Mughals had founded a far more solid base for themselves amongst the dependent artisans and merchants than amongst the powerful dignitaries of the state.



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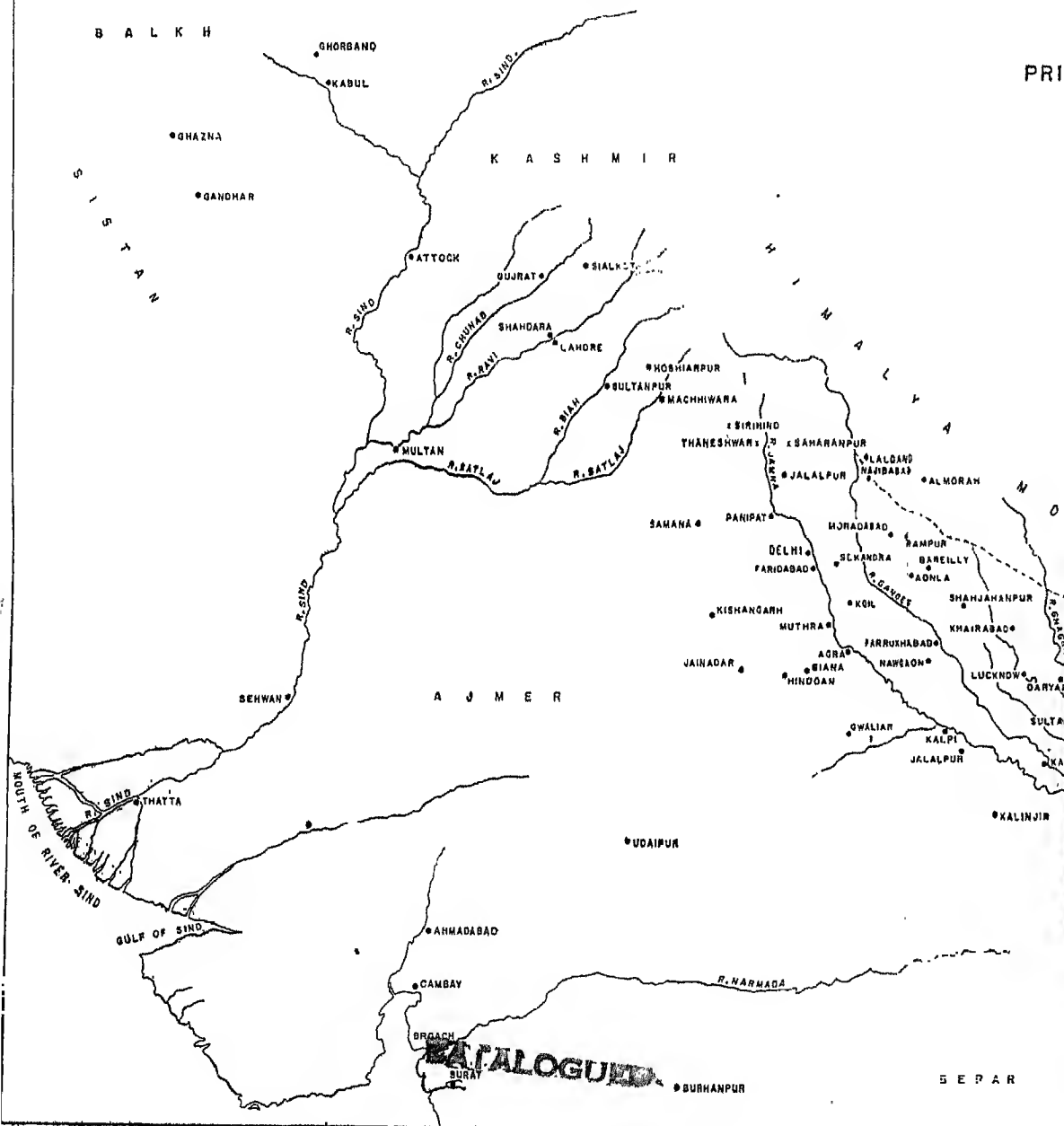
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ERRATA

- On page 34 in footnote no. 237 read *Hague*
in footnote no. 244 insert semi-colon after "p. 121"
- On page 36 in the 4th line from the foot, insert small 'l' in "local"
in footnote no. 265 read Anand
- On page 49 in the 6th line from the foot read Gujrat
- " " 53 in the tenth line from the top read Jahangir
- " " 59 in the footnote no. 490 delete comma after 'term'
- " " 61 in the 9th line from the foot read Dutch
- " " 63 in footnote no. 532 read *Aurangzeb*
- " " 69 in the 9th line from the foot read Monserrate
- " " 70 in footnote no. 63 read Irvine
- " " 78 in the 5th line from the top read Parvez
- " " 79 in footnote no. 207 read *Tuzuk*
- " " 81 in footnote no. 232 read Xavier
- " " 83 in footnote no. 263 read *Mansabdāri*
- " " 84 in footnote no. 267 read *Ma'asirul*
- " " 86 in the 2nd line of footnote read *Ma'asirul*
- " " 109 in the 3rd line read Khwajah
- " " 114 in the 2nd line from foot read Khwajah
- " " 118 in the 11th line from foot delete stop after Messrs
- " " 138 in footnote no. 24 read Irvine
- " " 183 in footnote no. 13 read tent
- " " 184 in 7th and 9th lines of Reference read *Mir'āt*
- " " 213 in footnote no. 207 read Partab
- " " 215 in the 8th line from the foot read *man* or maunds
- " " 241 in footnote no. 139 read *Tibb*
- " " 262 in footnote no. 304 read *Dastur*
- " " 263 in the 12th line read Princess
- " " 266 in the 2nd line read "...1707, the period..."
- " " 272 in the 7th line from the foot substitute stop for comma
- " " 282 in the 2nd line of footnote no. 42 read 'Per'
- " " 286 in the 10th line from the foot add 'in' before Hindustan



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